Development of Statistics of Disabled Persons: Case Studies

UNITED NATIONS

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Development of Statistics of Disabled Persons: Case Studies

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NOTE

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The term "country" as used in the text of this publication also refers, as appropriate, to territories or areas.

The designations "more developed" and "less developed" regions are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process.

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PREFACE

In adopting the World Programme of Action concerning Disabled Persons in 1982, in resolution 37/52, the General Assembly expressed a renewed commitment to promoting effective measures for the prevention of disability, for rehabilitation and for the realization of the goals of equality and full participation of disabled persons in social life and development. The World Programme of Action establishes concrete objectives for the United Nations Decade of Disabled Persons, 1983-1992, following up on the International Year of Disabled Persons (IYDP) in 1981, and drawing on the experience of the United Nations, Governments and non-governmental organizations in the field of disability.

The World Programme of Action recognizes the importance of statistics on disabled persons as a foundation for policy planning, implementation, monitoring, analysis and research. Specifically, it states:

> "Member States should develop a programme of research on the causes, types and incidence of impairment and disability, the economic and social conditions of disabled persons, and the availability and efficacy of existing resources to deal with these matters."[1/]

> "The Statistical Office [of the United Nations Secretariat] is urged, together with other units of the Secretariat, the specialized agencies and regional commissions, to co-operate with the developing countries in evolving a realistic and practical system of data collection based either on total enumeration or on representative samples, as may be appropriate, in regard to various disabilities, and in particular, to prepare technical manuals/documents on how to use household surveys for the collection of such statistics, to be used as essential tools and frames of reference for launching action programmes in the post-IYDP years to ameliorate the condition of disabled persons." [2/]

The Decade of Disabled Persons and the World Programme of Action concerning Disabled Persons have thus brought needed attention to an area of statistics that was often ignored or whose importance and significance were underestimated in the past.

The present publication is one of two new United Nations technical reports concerned with the development of statistics on disabled persons. Both were prepared in response to the recommendations of the World Programme of Action concerning data collection and research on disability and disabled persons. The objectives of the two reports are complementary: the present report was prepared on the basis of a set of case studies in a limited number of countries in order to analyse the extent and reliability of statistics which had already been collected on disabled persons in certain countries, to test techniques for using those statistics effectively, taking their technical limitations into account, and finally to consider ways of improving the collection and use of disability statistics which might be applicable in other countries. The second report, Use of Household Surveys to Collect Statistics of Disabled Persons, analyses in detail concepts and methods for data

collection on disabled persons, using household surveys.[3] The present report thus serves as a demonstration of how to make effective use of available statistics on disabled persons in countries where such statistics have been collected, while Use of Household Surveys provides technical guidance for data collection, drawing on statistical experience in many countries in household surveys and in the field of disability.

Taken together, the two reports provide convincing evidence of the practicality and usefulness of collecting statistics on disabled persons and present extensive technical examples, illustrations and guidance on methods of data collection, presentation and analysis. It is hoped that those methods, with suitable adaption to the particular social and cultural circumstance of each country, will find wide application in the course of the Decade of Disabled Persons and that improved statistics and their dissemination will promote more effective policies and programmes concerning disabled persons, pursuant to the objectives of the World Programme of Action.

Both reports were prepared as part of a programme of the Statistical Office of the United Nations Secretariat to promote the development of statistics on disabled persons, using population censuses and surveys, as requested in the World Programme of Action. The programme was established by the Statistical Office in co-operation with the Centre for Social Development and Humanitarian Affairs of the United Nations Secretariat. Financial support for this work has been provided by the International Year of Disabled Persons Trust Fund. The two reports were discussed in draft by the Expert Group on Development of Statistics on Disabled Persons, which met at Vienna from 2 to 6 April 1984. The present report has been revised to take into account the recommendations of the experts as well as comments and suggestions of the United Nations regional commissions, interested specialized agencies and other national and international specialists.[4]

The present report was drafted by Mary Chamie, assisted by Rita Mufarrij, as consultants to the United Nations Secretariat. Many of the data contained in the report were reviewed with individual specialists and organizations which had originally collected the statistics in the course of a mission by Mary Chamie to the five case-study countries from 5 February to 11 March 1983. The generous co-operation and assistance of the Governments, the offices of the resident representatives of the United Nations Development Programme and many national specialists in those countries are gratefully acknowledged.

Comments and suggestions concerning the present report are welcome. They should be addressed to the Director, Statistical Office, United Nations Secretariat, New York, NY 10017.

NOTES

1/ "World Programme of Action concerning Disabled Persons: report of the Secretary-General" (A/37/351/Add. 1 and Add. 1/Corr. 1), para. 185.

2/ Ibid., para. 198.

3/ Studies in Methods, Series F (United Nations publication, in preparation).

4/ The following experts participated in the meeting in a personal capacity: Janusz Bejnarowicz (Poland); E.F. Ching'anda (Malawi); Derek Duckwork (United Kingdom of Great Britain and Northern Ireland); Eloisa de Lorenzo (Uruguay); Sri Poedjastoeti (Indonesia); Muniera A. Al Quettami (Kuwait); Borhan Shrydeh (Jordan); and J. N. Tewari (India). The report of the expert group meeting has been issued as document ESA/STAT/AC.18/7, in English and Arabic.

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EXPLANATORY NOTES

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

Reference to "dollars" ($) indicates United States dollars, unless otherwise stated.

Reference to "tons" indicates metric tons, unless otherwise stated.

The term "billion" signifies a thousand million.

Annual rates of growth or change refer to annual compound rates, unless otherwise stated.

A hyphen (-) between years, e.g., 1984-1985, indicates the full period involved, including the beginning and end years; a slash (/) indicates a financial year, school year or crop year, e.g., 1984/85.

A point (.) is used to indicate decimals.

The following symbols have been used in the tables:

Two dots (..) indicate that data are not available or are not separately reported;

A dash (--) indicates that the amount is nil or negligible;

A hyphen (-) indicates that the amount is not applicable;

A minus sign (-) before a number indicates a deficit or decrease, except as indicated;

Three hyphens (---) indicate that the category was not used in the source.

Details and percentages in tables do not necessarily add to totals because of rounding.

INTRODUCTION

Limited compilation, dissemination and use of population census and survey results about disability have led many to believe that there are few data available for the study of disability in developing countries and that those data which are available are too complex, unreliable or incomplete to be useful. Research for the present report was undertaken in 1983 to test those widely held assumptions, using five countries as case studies. The countries are Egypt, Iraq, Jordan, Lebanon and the Syrian Arab Republic. The countries were chosen as case studies because their proximity to each other and known experience with data collection in the field of disability seemed to make them convenient and potentially fruitful sources of data for examination and analysis.

The case studies were undertaken with the following specific objectives:

(a) To examine in each country the usefulness of existing data for estimating the prevalence and distribution of disability and its social and health consequences;

(b) To develop and test techniques for utilizing national population census and survey data to provide indicators of disability and its determinants, characteristics and consequences, and of prevention and rehabilitation;

(c) To examine methodological issues in the collection, dissemination and interpretation of disability statistics with a view to developing improved methodologies potentially applicable in all countries interested in the development of disability statistics, nationally and internationally.

The results of the case studies are presented in this report. They show that in the five countries studied, there is a wealth of data about disability which has been collected in population censuses and surveys and in other studies. Those data require only careful compilation and presentation in a properly structured, easy-to-understand format to provide a good statistical foundation for planning, implementing and monitoring programmes concerning disabled persons.

Naturally it would be inappropriate to extend the conclusions of the experience in five countries to other countries. However, many less complete studies of disability statistics indicate that the findings of the present report may be broadly applicable. Thus the report has been prepared to encourage and assist development and the use of disability statistics in all interested countries, nationally and internationally, through examples based on the case-study countries.

The Expert Group on Development of Statistics on Disabled Persons reviewed the present report in draft form (see the preface above), and noted several key obstacles - either organizational or technical - to more effective use of disability statistics. Organizational problems include lack of

effective communication among data producers and between producers and users. Data on disability have often been collected without benefit of close co-operation and technical interaction among national statistical services, ministries and research specialists, or with statistical and subject-matter specialists in other countries or internationally. Some technical problems arise in part from organizational failures, such as lack of integrated data collection and planning, overlap and inconsistency across surveys and over time, and limited dissemination of data. Other technical problems concern more fundamental statistical issues, such as the reliability, meaningfulness and practicality of concepts and methods in the field of disability and the development and application of techniques of data presentation and interpretation that make good use of the data but also take their limitations into account. Very often technical limitations of data are given as a reason to discard them altogether when in fact, properly interpreted, they might still be quite useful.

For example, as the Expert Group noted and as is discussed further below, policy planners and others concerned with disability programmes, including the general public, often look to census and survey data on disability only to provide an overall prevalence rate. Because of technical limitations, however, an overall prevalence rate provides only an incomplete picture of disability and is easily misinterpreted. The partial picture can be very useful but needs to be supplemented with other analyses of the data. Disability is such a complex social, psychological and health issue that it is unrealistic to expect any single measure to be able to represent it adequately.

The present report is mainly concerned with the technical questions noted above. In examining them, it emphasizes the full exploitation of existing data prior to turning to further data collection. That approach was adopted in order to:

(a) Demonstrate the value of a historical perspective in planning statistical projects. Problems encountered and objectives achieved and not achieved need to be examined in order to improve future data collection and dissemination;

(b) Identify methodological issues associated with the measurement of disability in surveys and censuses on the basis of experience;

(c) Compile statistical estimates of disability from existing data as a basis for critical analysis of the data collection methods used, which have to a large extent been ad hoc in nature;

(d) Maximize the effectiveness of expenditures on data collection, compilation and dissemination through the exchange of information on the results of previous work prior to instituting further, costly data collection programmes.

In developing countries, data collection entails a significant opportunity cost in terms of scarce financial and human resources which could also be used for programmes of more direct assistance to disabled persons. Thus, it is imperative that data already collected in censuses and surveys not be rejected outright because the surveys were imperfectly conducted or because

they were conducted under less-than-ideal circumstances. In fact, the value of existing census and survey data on disability in developing countries may be all the greater, given the dearth of information available in most developing countries for policy development and programme planning. Time is also an invaluable commodity, and the speed with which existing data can be prepared for use in policy analysis and programme planning is another important argument in favour of making every effort to use those data more effectively. Thus, census and survey data on disabled persons, where available, offer unique opportunities for analysts to estimate and evaluate numbers, prevalence and characteristics of disabled persons in many developing countries.

There are special methodological problems associated with the measurement of health and disability status in large statistical enquiries based on enumeration by non-health specialists, but even when population census data on disabilities seem to indicate limited coverage of disabilities and disabled persons, the value of the numbers of impaired or disabled persons who are identified by censuses is significant, since the larger numbers identified in a complete enumeration can be analysed in more detail. By comparison, if 10 per cent or less of the population is typically affected by disability, national surveys of even 5,000 households will not cover a large number of such persons, and data on particular types of disabilities will be even more limited. In one sense census data can be treated as analytically similar to epidemiological studies of relatively rare events, such as studies of the chronically or terminally ill. Such studies are rarely based upon probability samples of the total population, owing in part to the difficulty of sample design given the relative rarity of the event. Rather they are useful because they are based on larger numbers of persons having the condition being studied and they thus permit a more detailed analysis of their characteristics and situation. Methodological experience in historical demography also provides useful experience in how limited information can be pieced together to form useful statistical profiles.

Overall, methodological issues in the use of large-scale census and household survey results must be concerned with understanding their possibilities for effective use, taking their limitations into account, particularly limitations in enumeration and coverage of disability conditions. The general objectives of the present report are to examine in a few countries the usefulness of existing data for estimating the prevalence rates and distributions of disability and its social and health consequences, suggest ways that national survey and census data may be utilized to provide statistical indicators of disability and its determinants, consequences, prevention and rehabilitation and point out methodological issues associated with the use of existing statistical data.

The report focusses upon data as they are currently published and presented by national statistical and research services in census and survey documents. It reviews national data sources in each case study country, evaluates those sources in terms of survey methods used and for their potential usefulness in planning further data collection, compilation and analysis, and presents information on the sources in such a way that they may be more readily compared and utilized for further statistical work, policy development and programme planning.

Several techniques are used to evaluate the studies of disability which are considered:

(a) Review of disability classifications used;

(b) Presentation and summaries of survey designs, field instructions, and available published tabulations;

(c) Illustrative graphs and figures highlighting findings;

(d) Presentation of selected tables derived from published tabulations;

(e) Review of methodological problems associated with the use of the data;

(f) Summary review of findings from various data bases with respect to the prevalence, location and status of disabled persons. The evaluation is presented in chapters I-III.

The emphasis in chapter I is upon the identification and classification of impairments and disabilities in the censuses and surveys reviewed in the report. It stresses that the numbers of disabled persons identified in any survey are subject to a great deal of variation depending upon the definitions chosen, the phrasing and location of the questions in the interview, and statistical, cultural, social and medical concepts of what constitutes a disability in a particular country at any particular time. The chapter also encourages data users to probe into the categories selected for investigation, to use them as indicators of what are culturally viewed as important disabilities, and to anticipate the coding and tabulation problems associated with selected disability categories. A historical overview of classification schemes in a country is one important way to consider the evolution of disability as a social and health concern and to note how statistical issues are modified as societies change.

Chapter II delineates the strengths and weaknesses associated with various data collection systems used to provide a statistical description of disability. The systems considered are population censuses, national household sample surveys, one-time registration surveys, and continuous registration systems. The methodological problems associated with the measurement of prevalence and distribution of disability are highlighted, especially problems associated with underenumeration, overenumeration, misclassification and selective reporting of disabled persons. The ways in which each of those problems occurs in surveys, censuses and registration systems are examined.

The goal of chapter II is to show data users how methodological influences on results can be detected and taken into account in considering findings important for policy and programme use. For example, high male-to-female sex ratios for a particular disability may be viewed in several important ways:

(a) They suggest that careful probing is required in order to find out the extent to which findings are attributable to social or cultural expectations or reluctance upon the part of interviewees to report disabled women;

(b) They suggest that, in order to make them socially appropriate, programmes designed for working with disabled women may require special introductions that programmes for men do not need;

(c) They suggest the need for careful investigation into the causes of any particular disability by age, sex, rural/urban residence, and the like, in order to discern the extent to which sex differences in reporting are due to the different life experiences of women and men, such as differential morbidity patterns, mortality, occupational hazards, and experience with accidents and injuries. The chapter also suggests that one way to avoid the weaknesses associated with any one data collection procedure when assessing the situation of disabled persons is through co-ordination of the various data collection methods.

Chapter III offers examples of data compilation and presentation using available published tabulations. It discusses the potential for integrating findings from various data bases, while acknowledging the limitations caused by differing classifications of disability, variations in age-groupings and in other classifications used in tabulation, such as sex and rural/urban residence. Special problems associated with comparing socio-economic characteristics of disabled populations by type of disability to socio-economic characteristics of total populations are also discussed, as are methodological problems associated with the measurement of disabled persons' occupations and economic activities.

Numerous examples are offered in chapter III of compilations and presentation of disability statistics that might be prepared from published tabulations of population censuses and national surveys. Particular emphasis in the beginning of the chapter is placed upon prevalence rates according to age, sex and rural/urban residence. Attention is then given to available indicators of the degree of equalization of opportunity achieved, or the social consequences of disability, such as comparative educational attainment, illiteracy, economic activity, occupational distribution, unemployment, and geographical distribution of disabled persons. Factors other than disability that influence the results are also pointed out, such as age and sex differences by type of disability relative to total population. The findings here indicate that opportunities for educational services, employment, and occupational diversity differ considerably, according to the type of disability examined and according to the age and sex of the persons involved. Selected programme implications of those findings are discussed.

The conclusions of the present study are summarized in chapter IV. The annexes and references provide detailed technical information on national data sources and methods and tabulations of the data examined in the five case-study countries.

I. IDENTIFICATION AND CLASSIFICATION OF IMPAIRMENT AND DISABILITY IN CENSUSES AND SURVEYS OF EGYPT, IRAQ, JORDAN, LEBANON AND THE SYRIAN ARAB REPUBLIC

The present chapter examines methods used to collect statistics on disability in selected population censuses and surveys of Egypt, Iraq, Jordan, Lebanon and the Syrian Arab Republic. It reviews data sources, definitions and classifications used and their application in the field, tabulation and dissemination issues and long-term experience with definitions and classifications in Egypt.

Data sources

Data on disabled persons were collected in at least 8 different censuses and six surveys conducted in Egypt, Iraq, Jordan, Lebanon and the Syrian Arab Republic between 1947 and 1981. Table 1 shows the year of data collection in each case and survey titles. (Citations for publications and reports for the data sources are provided in the References; technical information is provided in annexes I - III.)

Information on national censuses that collected data on disabled persons is presented in annex I. For each census, information is given on the source of data used in the case studies, published tabulations concerning disability, definitions and classifications of disability used in the sources, and coding and field instructions.

Information on surveys of disabled persons is presented in annex II. For each survey, information is given on the source of data used in the case studies, published tabulations concerning disability, survey design, and the definition and classification of disabilities. Annex III presents extracts from the questionnaires and schedules used in the case study countries to collect data about the disabled. English translations are also given. Examples of complete questionnaires are also presented in their original form so that variations in degree of detail, size and scope, and location of the more sensitive questions may be examined.

Definitions, classifications and field instructions

General issues

There are definitional problems inherent in any discussion of disability. No single term that encompasses the study of impairment, disability and handicap has been agreed upon by the scientific community. For the purpose of simplicity, and in the spirit with which the word "disability" was used when the International Year of the Disabled was established, the present report uses "disability" as a general term to cover all three aspects of impairment, disability and handicap. When greater precision is required, the present report uses the terminology of the trial classification of impairments, disabilities and handicaps of the World Health Organization (WHO) (1.16),*/ to the extent possible. In that classification, impairments are concerned with abnormalities of body structure and appearance and with organ

* Numbers in parenthesis refer to works cited in the list of references.

Table 1. Years of censuses (C) and surveys (S) that included questions about disablement

Country	1947	1957	1960	1970	1976	1977	1978	1979	1981
gypt			C		C		S[a/]		
raq	C	C				C			
ordan							S[b/]	S[c/]	S[d/]
ebanon				S[e/]					S[f/]
yrian Arab Republic			C	C					C

a/ National Health Profile of Egypt Survey, 1978-1983.

b/ National Survey of the Handicapped in Jordan.

c/ Special sample studies of the mentally retarded, blind, amputee and deaf-mute populations identified in the National Survey of the Handicapped in Jordan (Queen Alia Jordan Social Welfare Fund (QAF)).

d/ Survey of disabled refugees in the Jerusalem and Jericho areas of the West Bank (United Nations Relief and Works Agency for Palestine Refugees in the Near East).

e/ National Household Survey of the Economically Active Population.

f/ National Survey of the Disabled in Lebanon, 1980-1981 (Lebanon, Office of Social Development) and Study of the Handicapped in Lebanon, International Confederation of Catholic Organizations for Charitable and Social Action (CARITAS)).

or system function, resulting from any cause; disability refers to functional and performance problems attributable to an impairment; and handicaps are disadvantages that people have which result from their impairments and disabilities. In that conceptual framework, impairment is seen as a matter of medical diagnosis, while disability and handicap imply limitations which arise from the interaction of the individual and the social, physical and economic environment in which one is placed.

The general use of the term disability in the present report is intended to reflect the idea that the terms impairment, disability and handicap all imply different types of inability, disability or loss experienced by a person. The failure of body organs or systems to function normally (impairment), the inability to walk, to talk, to see peripherally and so on (disability), and the inability to go to school, to socialize or otherwise take care of oneself (handicap) are conceptually related by considering the degree to which persons are unable to function. The study of disability concerns itself with examining the long-term consequences of impairment, as they are manifested in disabilities and handicaps.

Thus, the conceptual framework of WHO is concerned with a description of three major types of inability. Impairments are inabilities caused by physiological or functional loss that are attributable to disease, accident, violence or genetics. Disabilities are the resultant loss of function in body organs, appearance, or body functioning. Handicaps are an estimate of the loss of opportunity with respect to educational attainment, occupational mobility and the like, experienced by an impaired person. The degree of compounded loss from each of the three interrelated types of "inability" is viewed in its totality in the present report as disability. In the data presentation used, "disability rates" may refer to rates of impairment, disability or handicap, depending on the usage in the source, and the distinction among them, if any, is spelled out by the categories used in the tables. However, it is not always easy to apply the distinction, given the kinds of questions asked in the censuses and surveys studied for the present report and cross-cultural variation in the framework of available expressions used to describe disability. The kinds of questions that are most likely to distinguish among the three basic concepts ask about specific kinds of behaviour or activity, such as Can the person see? walk? read? attend school? and so on.[1/]

Whether disability should be measured as an individual or an environmental characteristic has been an issue of concern to programme planners and statisticians for many years, but there is substantial agreement among researchers that disability at the individual level means more than disease, injury or medically defined impairment. The study of disability also concerns itself with social expectations and performance requirements. For example, individuals may be considered mentally impaired in one environment and not in another, depending on the surrounding situation. In general, characteristics of environments which "tend to narrow the adaptive opportunities of the functionally impaired individual" are important aspects of disability. The issue then becomes not only one of identifying the degree of a disabled person's inherent limitations - that is, impairment - but also, on the one hand, identifying medical or other intervention which can mitigate the disabling impact of the impairment and, on the other hand, identifying

characteristics of the environment which limit the disabled person's life (loss of educational and occupational opportunity because of prejudice, lack of adequate transportation, building limitations, and the like). In that case, the environment is viewed according to the degree to which it is limiting (laws, policies, social proscriptions, environmental hazards and restrictions placed upon impaired and disabled persons).

Indirect estimates of limiting environments are often obtained by measuring the degree of handicap an impaired person is reported to have. For example, the mean number of years of school attended by impaired persons when compared to the mean number of years of school attended by persons who are not impaired but who have similar demographic characteristics is a rough measure of educational opportunity lost or gained by impaired persons. The cause of the handicap may be attributable to lack of community provision for educational opportunity (in other words, a handicapping environment) and may also to some extent be related to the severity of a person's impairment.

Definitions and classifications in the case study censuses and surveys

This section summarizes the types of classifications of disability found in the various censuses and surveys under review. The total rate of disability estimated from any census or survey data is partly determined by the openness and the degree of fit of the classification categories to the disabilities found in the field. The wider the range of options available during the data collection process, the greater the likelihood of higher total disability rates being reported. The types of disability selected for inclusion in any census or survey are varied and reflect various statistical, cultural and medical concepts of disability.

Tables 2 - 5 show the disabilities covered by each of the censuses and surveys reviewed in the present report. Additional details are given in annexes I and II.

The definitions and classifications used for disability statistics in the censuses and surveys were prepared before the WHO classification (see reference 1.16) was available and hence are not entirely comparable with it. In order to approximately fit the earlier classification schemes into the new international classification, the categories of impairment used in the WHO classification are grouped into four major categories: sensory; physical; mental; and multiple impairments. Sensory impairments include those described by WHO as ocular, aural, and language impairments - for example, blindness, loss of an eye, deafness, partial loss of sight or hearing. Physical impairments include visceral, skeletal and disfiguring impairments - for example, amputations, paralysis, limping and lameness, deformity, and hunched back. Mental impairments include intellectual and other psychological impairments. Multiple impairments are combinations of those named above - for example, blindness and paralysis, or deafness and rheumatism. Each of the groups is described in more detail below, as applied in the case-study countries.

Sensory impairments

Sensory impairments include ocular, aural and language impairments (see table 2). Blindness has long been a primary concern of most sensory disability studies, and recently there has been increased interest in the measurement of partial sight. Loss of sight in one eye, when used as a category, was also found to be extensively reported in the case study countries. The reason for its inclusion in censuses and surveys and its higher prevalence rates needs further investigation. (Findings on eye loss are presented in chaps. II and III.) When statistical services were asked to define "loss of an eye" they explained that it included eye injury from accidents as well as total loss of sight in one eye, often attributable to trachoma on other eye diseases. Accidents were believed to be more important than disease in the explanations, especially because of the preponderance of their occurrence among middle-aged males.

The most commonly reported hearing and speech impairment was that of the deaf-mute. One census distinguished between deaf-mute, deaf, and mute and found persons fitting all three categories, which suggests that the deaf-mute category should be expanded or possibly even divided into two distinctly different impairments - namely, hearing impairments and speech impairments. Co-existing speech and hearing impairments could be identified at the stage of data compilation.

Physical impairments

Physical impairments include visceral, skeletal, and disfiguring impairments (see table 3). Arm and leg amputation was found to be a category of skeletal impairment consistently used by censuses, even though it is readily seen in chapter III that amputation is a rare event among already moderately rare events. However, especially in war-torn areas where injury from explosions and shelling is common, it is likely to be a relevant category for policy and planning. It is also a policy concern because of its association with traffic accidents. The specificity in the types of amputations reported is also considerable - i.e., loss of one arm, both arms, one leg, both legs, or one arm and one leg.

Other types of physical impairment are distinguished by the way that they are counted. Several different approaches to their measurement were used. Several censuses and surveys focused upon the cause of the impairment rather than the impairment itself - e.g., poliomyelitis, spinal bifida, epilepsy, leprosy. Others were measured in terms of abnormality in structure or function - e.g., limping or lame, hunched back, partly or completely paralysed, or debilitated. Several surveys combined those diverse approaches (see table 3). Epilepsy was included in the Jordan study (4.9) as an impairment that might possibly lead to disability and was reported as a health problem in the Egyptian National Health Profile (2.7), but was not included in the special disability survey module of the Health Profile.

Table 2. Coverage of sensory impairments in censuses and surveys of the case-study countries

Type of sensory impairment a/	Egypt			Iraq			Jordan			Lebanon			Syrian Arab Republic		
	Censuses		Surveys	Censuses			Surveys			Surveys			Censuses		
	1960	1976	1978-1979 (2.7)	1947	1957	1977	1978 (4.7)	1979 (4.6)	1981 (4.9)	1970 (5.12)	1980-81 (5.11)	1981 (5.3)	1960	1970	1981
Visual (ocular)															
Partial loss of sight			X												
Blind (total loss)	X	X	X	X		X	X	X b/	X	X	X	X	X	X	X
Loss of an eye	X	X		X								X	X	X	
Amblyopia												X			
Aural or language															
Partial loss of hearing			X												
Deaf (total loss)		X	X	X	X			X			X				
Partial loss of speech			X												
Mute (total loss)		X	X	X							X				
Combined aural and language categories															
Deaf, mute and deaf-mute												X			
Deaf and/or mute										X					
Multiple sensory impairment															
Hearing and speech difficulty												X			
Deaf-mute	X	X				X	X	X			X		X	X	X
Blind-deaf											X				
Blind, deaf and mute											X				
Other combinations											X				

a/ Follows as closely as possible the WHO classification (see reference 1.16).
b/ A special in-depth study of 137 students in a school for the blind.

Table 3. Coverage of physical impairments in censuses and surveys of the case-study countries

Type of physical impairment a/	Egypt			Iraq			Jordan			Lebanon			Syrian Arab Republic		
	Censuses		Surveys	Censuses			Surveys			Surveys			Censuses		
	1960	1976	1978-1979 (2.7)	1947	1957	1977	1978 (4.7)	1979 (4.6)	1981 (4.9)	1970 (5.12)	1980-1981 (5.11)	1981 (5.3)	1960	1970	1981
Skeletal															
Amputation								X	X		X				
Upper limb: hand							X								
arm							X					X		X	X
One or both arms	X	X			X								X		
Both arms						X						X			X
Lower limb: leg							X					X		X	X
One or both legs	X	X											X		
Both legs						X									X
One hand and leg							X					X			
More than two limbs												X			
Limbs									X						
Paralysis (general)					X	X				X	X				X
Full: quadriplegia							X					X			
Partial (general)							X								
One upper limb												X			
One lower limb												X			
Both lower limbs															
(paraplegia)									X			X			
Hemiplegia									X			X			
Total or partial				X											
Poliomyelitis									X			X			
Spinal bifida											X				
Child paralysis											X				

Table 3 (continued)

Type of physical impairment a/	Egypt			Iraq			Jordan			Lebanon			Syrian Arab Republic		
	Censuses		Surveys	Censuses			Surveys			Surveys			Censuses		
	1960	1976	1978-1979 (2.7)	1947	1957	1977	1978 (4.7)	1979 (4.6)	1981 (4.9)	1970 (5.12)	1980-1981 (5.11)	1981 (5.3)	1960	1970	1981
Spinal disability			X												
Upper limb disability															
Right arm			X												
Left arm			X												
Lower limb disability															
Right leg			X												
Left leg			X												
Lame and helpless				X											
Lame					X				X						
Cerebral Palsy															
spasticity												X			
Rheumatism											X				
Deformity															
Deformity (general)									X		X	X			
Hinders movement												X			
Visceral															
Epilepsy			X						X		X				
Generally undefined															
debility			X												
Multiple physical															
Paralysis and rheumatism											X				
Paralyzed and deformed											X				
Other combinations											X				

a/ Follows as closely as possible the WHO classification (see reference 1.16).

Table 4. Coverage of mental impairments in censuses and surveys of the case-study countries

Type of mental impairment a/	Egypt			Iraq			Jordan			Lebanon			Syrian Arab Republic		
	Censuses		Surveys	Censuses			Surveys			Surveys			Censuses		
	1960	1976	1978-1979 (2.7)	1947	1957	1977	1978 (4.7)	1979 (4.6)	1981 (4.9)	1970 (5.12)	1980-1981 (5.11)	1981 (5.3)	1960	1970	1981
Intellectual or other psychological															
Mental disability (general)	X		X	X		X			X	X		X		X	X
Mild							X	X			X				
Moderate								X			X				
Severe							X	X			X				
Intellectual															
Mongoloid (Down's syndrome)									X		X				
Psychological															
Mental illness (general)							X		X						
Brain damage and mental disease									X						
Head injury									X						
Multiple mental impairment															
Intellectual and psychological				X											

a/ Follows as closely as possible the WHO classification (see reference 1.16).

Table 5. Coverage of multiple impairments in censuses and surveys of the case-study countries

Type of multiple impairments a/	Egypt			Iraq			Jordan			Lebanon			Syrian Arab Republic		
	Censuses		Surveys	Censuses			Surveys			Surveys			Censuses		
	1960	1976	1978-1979 (2.7)	1947	1957	1977	1978 (4.7)	1979 (4.6)	1981 (4.9)	1970 (5.12)	1980-1981 (5.11)	1981 (5.3)	1960	1970	1981
Sensory and physical					X										
Blind and other impairment					X						X				
One-eyed and other impairment					X										
Physical and mental											X b/				
Sensory and mental					X										
Sensory and other												X			
Intellectual impairment and other												X			
Other psychological and other impairment												X			
Crippled and deformed					X										
Hunched back and deformed					X										

a/ Follows as closely as possible the WHO classification (see reference 1.16).
b/ For a detailed explanation of this category, see reference (5.10).

Mental impairments

Mental impairments include intellectual and other psychological problems - with no distinction made between them, in some cases (see table 4). Part of the difficulty in distinguishing between the two categories derives from problems associated with lay reporting of mental impairment. Lay reporters, for example, would find it difficult to distinguish between a person who has a psychological problem and a person who is moderately impaired intellectually and acts out because of lack of training or supervision.

In one survey, a functional measure of mental disability was used (5.11). Mental disabilities were distinguished by the level of functioning of the respondent rather than through identification of the impairment. An index was constructed based upon three survey questions and the age of the disabled person. The index divided the mentally disabled into three broad levels: mildly disabled; moderately disabled; and severely disabled, for each of three major age groups, as shown below:

Index of mental disablement

Age 3-5	mild
	moderate
	severe
Age 6-10	mild
	moderate
	severe
Age 11+	mild
	moderate
	severe

In order to determine the functional level of the mentally disabled (i.e., mild, moderate or severe), the following survey questions were utilized:

Does the impaired person walk:

____normally ___with difficulty ___not at all

Does the impaired person understand speech:

____normally ___with difficulty ___not at all

Does the impaired person speak:

____normally ___with difficulty ___not at all

Does the impaired person have:

___normal toilet training

___nocturnal enuresis (bed wetting at night)

___daytime enuresis (wetting during the day)

___nocturnal incontinence (bowel)

___daytime incontinence (bowel).

The construction of the index on the functional level of the mentally disabled is explained in detail in reference 5.11 (pp. 94-104). The example below shows how the index was constructed to measure the degree of functioning of 3-5-year-old mentally disabled children. Activities of 3-5-year-olds were then categorized in the index of mental disability:

Does the child (given its age):

Level of functioning	walk normally?	understand normally?	talk normally?	function normally with toiletting?
Mildly disabled				
1	YES	YES	YES	YES
2	YES	YES	YES	NO
3	YES	YES	NO	YES
4	YES	NO	YES	YES
Moderately disabled				
5	NO	YES	YES	YES
6	YES	YES	NO	NO
7	YES	NO	YES	NO
8	YES	NO	NO	YES
9	NO	YES	YES	NO
10	NO	YES	NO	YES
11	NO	NO	YES	YES
12	YES	NO	NO	NO
Severely disabled				
13	NO	YES	NO	NO
14	NO	NO	YES	NO
15	NO	NO	NO	YES
16	NO	NO	NO	NO

Using this scheme, a new variable, formed on a scale of 1-16, indicated the level of functioning of the mentally disabled 3-5-year-old child. The index of level of functioning (1-16) was selected from the left-hand column.

The index was constructed as a measure of mentally impaired persons' abilities to take care of themselves. The potential for distinguishing the degree of disability associated with a mental impairment through such an index may be greater than distinguishing disability through knowledge of the type of impairment - i.e., intellectual versus other psychological impairment. Further, more in-depth probes would be required of the interviewer if that type of distinction in mental or psychological impairments were desired in a survey situation - e.g., age at onset, behaviours exhibited, traumatic experiences, diagnosis if ever taken to a specialist, and so on. In addition to using an index of the degree of mental disability, the same survey also recorded mongolism through the identification of facial features.

These attempts to record the numbers of mentally impaired persons in censuses and surveys are significant. They at least demonstrate that these are legitimate topics of concern and that people of both sexes can be identified as psychologically or intellectually impaired even though under-enumeration may occur.

Multiple impairments

The difficulties of national statistical services in establishing meaningful impairment categories are readily seen in the various coding schemes shown for the case-study countries in annexes I and II to the present report.

One of the biggest problems derives from the fact that impaired people may have multiple impairments and disabilities and therefore do not always fit neatly into any single category. There is need for indexes of impairment which cross-classify multiple impairments into clear and analytically comfortable categories. Cross-classification at the compilation and tabulation stage reduces the pressure upon enumerators to total up each of the impairments while in the field and to come up with a "diagnosis" of which category of multiple impairments is most suited to any given person. In addition, any grouping of multiple impairments that is done at the fielding or coding stage cannot be disaggregated at the compilation stage.

Field instructions

Variation in field instructions was found to be as great as in the number of coding schemes. In one older census, separate instructions were given for assessing male and female disabilities (3.4). In that particular case, it was mandatory for enumerators to ask about male disabilities and optional to ask about those of females. In the remaining censuses and surveys examined, no such distinction in instructions was given.

Instructions concerning what not to include as a "visible disability" were quite varied - e.g., fingers or toes missing (2.5, 5.3, 5.11, 6.3); damaged noses, ears missing (2.5, 6.3); internal illness, psychological depression (2.2); facial scars or eye colour (3.1). With respect to mental illness, in one survey instructions were given to the interviewers not to report mental illness if the person was under 21 years of age (5.11). In the same survey, impairments in one eye or ear were not to be reported.

In situations where operational definitions of disability were not given to the field workers, problems occurred later in the coding of the questionnaires. For example, in the CARITAS survey in Lebanon (5.3), field workers were unclear about the definitions of "amblyopia" and could not easily identify persons who should be put into that category. Similar difficulties were encountered when field workers tried to identify and classify hearing and speech problems where there were no operational definitions. Coders were forced to group all deaf, mute, and deaf-mute persons under a single code, thereby losing a great deal of information. Problems with the 1960 Egyptian census category of deaf and mute (where neither deaf only nor mute only was reported), resulted in the expanding of categories in the 1976 Egyptian census so that deaf, mute and deaf-mute people could be recorded in separate categories. Even with the type of categorization used in 1976, there was still no distinction between partially deaf and totally deaf, or partially without speech and totally without speech. Consequently, there were operational problems in the field when enumerators were forced to decide what to do under conditions of partial hearing or speech, since those situations were not spelled out in the field instructions.

The Egyptian Health Interview Survey disability component 1978-79 made a distinction between partial or total loss of hearing or speech and therefore simplified the instructions required for field workers. In addition, in that study the deaf-mute category can be constructed at the data compilation stage rather than the coding stage through the cross-tabulation of the two variables, further easing the burden on field workers and coders.

Examples of data collection instruments

Annex III offers examples of the instruments used by the censuses and special surveys to collect data about the disabled. Both the original Arabic and English versions of the survey instruments are presented. Examples of entire instruments are presented in their original form so that the variation in degree of detail, size and scope, and location of the more sensitive questions may be examined.

Tabulation and dissemination issues

Although extensive data about disability have been collected and tabulated by national statistical services and by ministries in the countries covered by the present study as well as by some private organizations, tabulations of the results were rarely transformed from crude numbers into rates or percentages. There has been little additional effort to make data in the initial tabulations useful or understandable for users. Quite often, the ministries who originally sought information on disability never even followed up with any requests for data. Undoubtedly one major reason for that is the amount of time which elapses between the request for statistical data on disability by interested groups and the completion of the published tabulations, but there are other reasons why typically there is an information gap between data producers and data users regarding the availability and interpretation of statistics on disability.

In several instances examined in the case studies, the dissemination of statistics on disability failed at the publication stage. Costly studies were carefully conducted, coded, edited, collated, analysed and written up, and then funding for the work ended and further funds for publication were not readily forthcoming. In other cases, final reports were not published because war or internal civil strife disrupted the work.

Whether or not the statistics have been disseminated, the censuses and surveys reviewed for the present report usually describe disabled persons by nationality, age, sex, place of residence, religion, occupation, educational attainment, and economic activity. Typically, various impairments are recorded, such as blindness, partial sight or loss of sight in one eye, loss of one or both arms, loss of one or both legs, paralysis, crippling, spinal problems, mental retardation, mental illness, deafness, lack or loss of speech, and multiple impairments. The types of impairments selected for any census or survey are varied and no doubt reflect the statistical, cultural and medical understanding of what constitutes an impairment or disability in a particular country at a particular time. Some categories are ambiguous or all-encompassing. Others are precise and refer to readily defined attributes.

Surveys probed further than did censuses into such subjects as date of onset of impairment and disability; cause of the disability or impairment; and medical, health, special education and rehabilitation programmes utilized by disabled persons. Sometimes questions were also asked on the degree to which disabled persons were able to take care of themselves in daily living tasks or at the place of their vocation. Questions about the use of a prosthesis were also included in some surveys. Samples of census and survey questionnaires from the case study countries are presented in annex III, in the original Arabic, with English translations. Several special studies on disability included the use of physical examinations by physicians and testing by other specialists, such as psychologists, educators and lab technicians - e.g., the Egyptian Health Interview and Medical Examination Survey, 1979-1983, and the Jordan Evaluation Studies (4.6).

Historical experience in Egypt

Since the early 1900s, the Government of Egypt has conducted censuses which documented the numbers and types of impairments found among its population. The 1907 population census identified 524,000 persons, or 4.7 per cent of the population, as impaired, based on four categories of impairment. The categories used were blindness, loss of an eye, leprosy, and mental illness. The basic data are shown in table 6.

The high ratios of males to females shown in table 6 for mental illness, leprosy and eye loss are probably largely due to methodological problems associated with measuring women's impairments as well as actual sex differences in the rates. The lower sex-ratio of the rate of blindness is probably explained by the fact that it is more socially acceptable for elderly women to be reported as blind than younger women, and blindness is more commonly reported among the elderly. 2/

Table 6. Number of impaired persons, by type of impairment and sex, Egypt, 1907 (per 100,000 persons)

Type of impairment	Both sexes	Male	Female	Male/female ratio
Sensory				
Blind	1 325	1 229	1 422	0.86
Loss of sight in an eye	3 250	3 693	2 804	1.32
Physical				
Leprosy	58	76	40	1.90
Mental				
Mental illness	49	65	32	2.03
Total prevalence rate	4 682	5 063	4 298	1.18
Total number of impaired persons	523 942	284 410	239 532	1.19

Source: Egypt, 1907 Census of Population (Cairo, 1907), table II.

More recently in Egypt, the categories used to measure impairment have changed. For example, in the 1960 census persons having leprosy and the mentally ill were not counted. Instead, the 1960 census asked about the blind, the deaf and mute, amputees and one-eyed persons. In 1976, the census in Egypt expanded the coverage to include deaf persons, persons without speech (mute) and the mentally retarded. In 1980, when a special survey of disabled persons was designed as part of the Health Interview and Medical Examination Survey (HIS), the coverage was expanded even further, and more detailed distinctions were made in the classification. For example, the category of visual problems was defined to include reports of partial and total loss of sight. Partial and total loss of hearing were also included, as was partial loss of hearing in addition to total loss of speech. Coverage of the Egyptian censuses and survey is shown in table 7.

Table 7 shows that the impairment for which data derived from different censuses and surveys in Egypt can most easily be compared is blindness. It was asked about at all four times - 1907, 1960, 1976 and 1981. A comparison of the rates of blindness found in the various Egyptian censuses and Health Interview Survey is made in chapter II.

Table 7. Impairments covered in the Egyptian censuses of 1907, 1960 and 1976 and in the Health Interview Survey (HIS) 1978-79

Categories	Censuses 1907	Censuses 1960	Censuses 1976	HIS 1979-1983
Sensory				
Visual				
Blind	X	X	X	X
Partial loss				X
Loss of sight in an eye	X	X	X	
Speech and hearing				
Deaf (totally)			X	X
Partial loss				X
Mute (no speech)			X	X
Partial loss of speech				X
Physical				
Amputee				
One or both arms		X	X	
One or both legs		X	X	
Other general				
Upper limb disabled				X
Lower limb disabled				X
Leprosy	X			
Mental				
Mental disability				X
Mentally ill (psychological)	X			
Mentally retarded (intellectual)			X	
Other general				
Debility				X
Multiple impairments				
Deaf-mute		X	X	

Sources: Egypt, 1907 Census of Population (Cairo, 1907); Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, 1963); Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980); Ministry of Health, Health Interview Survey: Results of the First Cycle. Health Profile of Egypt, publication No. 16 (Cairo, 1982).

II. METHODOLOGICAL ISSUES IN THE UTILIZATION OF NATIONAL CENSUSES AND SURVEYS FOR STUDYING IMPAIRMENTS AND DISABILITIES

Regardless of the design of a survey or the quality of its data collection forms and field procedures, selective reporting of events is likely to occur. The challenge is to identify where and how selective reporting has influenced the results. The present chapter reviews the strengths and limitations of national censuses, household surveys, using probability samples, one-time registration surveys and continuous registration systems in the estimation of numbers and distributions of disabled people. Problems associated with specific data collection methods and problems of underreporting, overcounting, misclassification, selective reporting and unusual sex ratios and age distributions are discussed. Comparisons between and within countries are used to ascertain the consistency with which special patterns are found. Whenever possible, census and survey estimates for the same country are compared. Unusual distributions are examined for the possibility that they are the result of special circumstances such as epidemics, occupational hazards, war, and age- and sex-differences in morbidity patterns. The extent to which unusual distributions may be the result of census and survey inadequacies and general methodological problems is also discussed.

In addition to censuses and probability sample surveys of households, another data collection technique used for the study of disability is the one-time registration survey, such as the Jordan study in 1978 and the Lebanon studies in 1981. Those surveys are described in annex II.

In a registration survey, through the use of public announcements or similar means, attempts are made to register the total population of disabled persons residing in a country or area - for example, through household visits or the use of temporary registration centres. All disabled persons are asked to register during a specified period of time, usually within one or two months. Typically, the objectives of a registration survey are to set up a list of disabled persons needing services and to obtain information on the situation of disabled persons and their families. Less common than one-time registration surveys are continuous registration systems. Data compilation in such systems is based on cases of disability reported for governmental and institutional purposes, such as social security benefits, welfare payments, medical and insurance coverage, hospital administration and educational services.

Advantages and limitations of various data collection methods

Each of the data collection methods noted above has its own advantages and disadvantages, which are described in table 8. A comparative summary of strengths and weaknesses of the main data collection methods for estimating and describing disability is given in table 9.

Advantages and limitations associated with the utilization of censuses, surveys and registration systems for the study of fertility and mortality are extensively discussed in publications of the United Nations and World Health Organization (1.12) and the United States National Academy of Sciences (1.13, 1.14). The criteria used to evaluate the abilities of censuses and surveys to collect data about fertility and mortality are also relevant to the evaluation of those same data collection methods with respect to collection of data on

Table 8. Advantages and disadvantages of selected data collection methods for the study of disability

Advantages	Disadvantages
Population censuses	
1. Data can be tabulated for small, local areas.	1. The subject matter is limited to basic socio-economic and demographic characteristics. Limited range and depth of interview are possible on the special situation of disabled persons.
2. Prevalence rates can be calculated for small geographical areas because data are also gathered about the population at risk.	2. Data collection is infrequent, i.e., usually every 10 years. The time between data collection and data dissemination can be considerable.
3. Detailed descriptive cross-tabulations are not subject to sampling errors. The study of causes of disability in local areas is, however, subject to limitations from the number of observations involved. Underlying differences found in different areas may be attributable to small numbers of observations rather than to any pattern of causality for that area.	3. The disabled in institutions may not be included in the census population or at least not in the descriptive tabulations - i.e., sometimes only the non-institutionalized population is covered.
4. If disability questions remain comparable, they can be useful for time-series analysis of disability rates.	4. Subject to high non-response rates and underenumeration because of the complexity and sensitivity of the question and the limitations of the survey instrument.
5. The numbers of disabled persons found are usually large, and therefore more detailed cross-tabulations can be prepared, allowing for greater specificity and complexity in the analysis.	5. It is very costly and time-consuming to ask 80-90 per cent of the total population a question that is likely to be answered negatively, in order to identify the 1-20 per cent that is disabled.

6. Can provide a useful sampling frame for research on disabled populations that are otherwise difficult to find, such as blind persons and those who are deaf or mentally impaired.	6. Given the massive task of training personnel for a census operation, enumerators may be limited in the amount of training received on the subject of disability, which needs very specific guidelines.

Probability sample surveys

1. Prevalence rates can be tabulated because data are also gathered about the population-at-risk.	1. There is limited ability to analyse prevalence rates for many local areas, owing to the limited sample size and subsequent sampling errors associated with disaggregations for small areas.
2. There is much flexibility in the depth and range of topics that may be covered. Special probes may be designed to ensure that the disabled are identified.	2. Sample size is limited unless the survey is very large. Because less than 20 per cent of any population is likely to be reported as disabled, the size of the disabled population identified in any sampled population is likely to be especially small.
3. Are relatively easy to initiate, given the availability of a sampling frame and a survey-taking infrastructure.	3. The coverage of the populations in unusual circumstances is typically very poor - e.g., institutionalized persons, members of secondary families, secondary individuals, homeless persons and refugee or nomadic populations.
4. If comparability is built into the design and survey instrument it can be useful in time-series analysis or as a comparison for census data.	4. Time-series analysis based upon ad hoc surveys is subject to a great deal of uncertainty.
5. There is greater control over the conditions of observation and the interview because of limited coverage geographically and a smaller number of interviews to be completed.	5. Detailed surveys require close supervision of field work and special training for the field supervisors and interviewers about disability and related topics.
6. Design modifications may be tried in order to increase the power of the survey in locating disabled persons - e.g., co-ordinating probability sample selection with the use of a census, registered population lists, stratification at the sampling stage or by increasing the sampling fraction.	

There is greater opportunity for supervision of field work and specialized field training and for careful pre-testing of detailed questions about impairment.

One-time registration surveys

. Relatively easy to initiate.

. Do not require a large on-going unknown staff for long periods of time.

. Can provide a large number of cases for complex data analysis where extensive cross tabulations and disaggregation are required.

. May be used to assist governmental and private agencies such as social security and social welfare offices and medical and educational organizations, in locating disabled persons for provision of services.

5. If done thoroughly, may be used to prepare a sampling frame for research on population with specific disabilities, such as blind, deaf, or mentally retarded persons.

1. The extent of coverage and the degree of representativeness are unknown and sampling error cannot be estimated.

2. The population-at-risk is unknown, so prevalence and incidence rates of disability cannot be calculated.

3. Problems will be encountered with double-counting because of the utilization of many kinds of informants and multiple registration lists of registered disabled persons.

4. The ability to extrapolate findings to a larger population of disabled persons is limited and questionable.

Continuous registration

1. Tabulations can be prepared for small geographical areas.

2. Detailed disaggregation is not subject to sampling error.

3. Can provide numerator data required for the estimation of both incidence and prevalence rates.

4. Both short-term and long-term time-series are easier to compile and more reliable because of institutional continuity in the collection process.

5. Data collection can be closely linked to the provision of special services.

6. Provides a sampling frame for in-depth research concerning specific disabled populations.

1. Reporting of disability is usually based on when disability is diagnosed rather than initial occurrence.

2. The population-at-risk (that is, the denominator for prevalence and incidence rates) must be determined independently - e.g., from population census data or from population projections and estimates.

3. The system is relatively inflexible to changes in content and procedure.

4. Organization and administration require well-trained statistical and substantive personnel, and data collection and compilation over time is complex.

5. Multiple registration is difficult to detect.

Table 9. Comparative summary of characteristics of data collection methods for statistics on disabled persons

Criteria	Population census	Sample survey[a/]	One-time registration	Continuous registration
Detailed impairment and disability characteristics	Weak	Weak to moderate	Moderate to strong	Moderate to strong
Topical detail (richness and diversity of non-disability characteristics)	Moderate	Strong	Moderate	Weak
Accuracy of coverage	Moderate	Moderate	Weak to moderate	Weak to moderate
Absence of sampling error	Strong	Weak	-	-
Timeliness of data	Weak	Moderate to strong	Strong	Moderate
Geographical detail	Strong	Weak	Strong	Strong
Obtaining information on the population at risk	Strong	Strong	-	-
Ease of organization in a developing country	Moderate	Strong	Strong	Weak
Number of cases available for the analysis of selected disabilities	Moderate to strong	Weak to moderate	Moderate	Strong

Criteria	Population census	Sample survey[a/]	One-time registration	Continuous registration
Prevalence rates can be estimated	Strong	Strong	Weak	Weak to moderate
Incidence rates can be calculated	Weak	Moderate	Weak	Strong
Persons requiring special services can be identified	-	-	Strong	Strong
Usefulness for community-based project planning for disabled persons	Weak to moderate	Weak	Moderate to strong	Moderate to strong

Source: Adapted from United States of America, National Academy of Sciences, National Research Council, Committee on Population and Demography, Collecting Data for the Estimation of Fertility and Mortality (Washington, D.C., 1981), table 1.5. Criteria particularly relevant to disability have been added.

a/ Assumes use of a scientifically designed, probability sample.

disability. Like mortality and fertility, disability is a health-related event that is neither uniformly nor necessarily normally distributed across the total population. Reporting of disability has many of the same problems inherent in the reporting of mortality, such as problems with lay reports of medically defined events, difficulties recalling the time of onset of an illness or disability and problems determining the most eligible and knowledgeable respondents. The seven criteria used for the evaluation of census and sample surveys in the publications noted above are shown in table 9, with criteria particularly pertinent to the study of disability added. The strengths and weaknesses of each data collection method for measuring disability are evaluated there.

Each of the four data collection methods also has its own distinctive set of strengths and weaknesses when it comes to measuring disability. Censuses, for example, are strong methods with respect to the number of cases included, geographical detail and suitability for the calculation of prevalence rates. Weaknesses associated with censuses include limited topical detail, infrequency of data collection - usually every 10 years, and limited suitability for local project planning for disabled persons.

One way to avoid the weaknesses associated with any one data collection procedure is through the co-ordination and use of various data collection methods and survey designs when assessing the situation of disabled persons. Deficiencies associated with census data, for example, can be addressed with special surveys. The inadequacies associated with specialized sample surveys can be partly overcome through the use of additional data sources, such as censuses, registered populations and hospital data. Research findings based upon various data collection procedures must be fused through careful analysis and through theoretical formulation of the problem. Part of the difficulty and challenge of the assessment of the situation of the disabled centres on the ability to pull findings from various sources together so that a profile can be drawn of disabled persons' current situation.3/

There are several other possible problems with the measurement of disability which affect the results, in addition to the general advantages and disadvantages associated with any particular data collection method. They include underenumeration, overenumeration, misclassification, and selective reporting of disabilities according to the age or sex of the respondent.

Underenumeration

International estimates of the numbers and percentages of persons affected by impairments, disabilities and handicaps are strongly influenced by the scope of the definitions used. A narrow or broad definition adopted by researchers and planners can substantially affect the numbers of persons reported as affected by disabilities. Therefore, it becomes imperative to understand the definition of disability used in any particular case when assessing the scope of enumeration.

Other factors may result in underenumeration, including:

(a) Socio-cultural pressures to underreport the presence of young women who are disabled, especially when they are of marriageable age. The wording and phrasing of the question can be critical in that respect. Appropriate probing may be essential;

(b) Inability properly to assess or diagnose a disability, especially of a young infant, or a lack of understanding by families that a particular problem a young child is experiencing is attributable to an impairment or disability;

(c) The difficulty of identifying at an early stage such impairments as retardation or mental illness, because the academic and social potential of young children has not yet been sufficiently observed or tested;

(d) Reluctance to admit the presence of an impairment or disability because it is sometimes associated with shame or with poverty;

(e) Not reporting an impairment or disability because the affected person has successfully functioned without a handicap and the distinction between impairment, disability and handicap is not clear in the question asked of the respondent or in the field instructions to the interviewers;

(f) Selective reporting of only certain "visible disabilities", precluding the reporting of other important kinds of impairment (e.g., reporting of blindness but not of partial sight);

(g) Coverage by large-scale household surveys and censuses of many issues other than disability, which may reduce the subject of disability to a low priority concern. In such circumstances, field training sessions may not be adequate to explain clearly what is to be covered in the question concerning disability;

(h) Limitation with even the most carefully designed and relatively complete set of questions on disability to a sample of disabled persons found by an initial screening process. For example, carefully prepared disability surveys that interview persons identified in national household surveys and censuses as disabled are subject to the limitations of the initial questions used to identify the disabled in the more general questionnaires;

(i) Failure on the part of interviewers to ask about disability unless a disabled person is seen during the household interview. An adequately trained interviewer might not be prepared to probe on the issue.

Overenumeration and misclassification

There is also a possibility that the numbers of affected persons can be overrepresented or misclassified, especially under the following conditions:

(a) When promises of special treatment or welfare assistance to the disabled who are identified during national campaigns to register them are made;

(b) When payments are offered to persons who report their disability (for example, they are paid to participate in the survey or are promised financial compensation for reporting a disability);

(c) When the definition of impairment becomes ambiguous or broad and is therefore all-encompassing or ill-defined;

(d) When the analysis is not careful to distinguish between impairments and impaired persons. Typically, there are many more impairments reported than impaired persons, owing to problems with multiple impairments. If not carefully distinguished in data compilation and tabulations, the specific impairment rates, when summed, would indicate more impaired persons per 100,000 than are actually reported;

(e) When enumerators cover the same territory, resulting in double-counting of impaired persons. That is especially likely to occur when non-household members, such as teachers, social workers, managers of institutions, physicians and local leaders, provide information on disabled persons. In such a situation, impaired or disabled persons may be reported by more than one person or placed on more than one registration list;

(f) When less visible impairments are more ambiguously defined. For example, intellectual impairment or other psychological problems or hearing losses may be misdiagnosed, especially in lay reports of the problem, thereby placing the impaired person in the wrong category and artificially inflating the rates of the category within which the impaired person was placed (and also lowering the rate of the category within which the person ought to be placed).

Selective reporting and age/sex patterns of impairment

One major reason for examining data classified by age and sex is to assess the extent to which impairment, as reported, follows national age/sex patterns. Impaired and disabled populations are expected to have unique configurations of age and sex patterns, depending upon the type of impairment under investigation. The degree of consistency found in the age and sex patterns should be analysed over time and among countries. Age and sex patterns of impairment which are especially examined in the present report for their methodological implications include:

(a) Distributions of pre-school age children;

(b) Sex differences in reporting;

(c) Differences in the age distributions of disabled persons by sex.

The possibility that any particular age and sex distribution of impairment is at least partly due to substantive differences in the rates rather than methodological inadequacies should also be considered.

Statistical examples

Underenumeration

Even though the total population of Egypt grew from 11.3 million in 1907 to 36.6 million in 1976, the number of impaired persons reported in subsequent censuses has never approached the 1907 number (see table 10). In contrast to the 523,942 impaired persons reported in 1907, 256,199 were identified in 1960

and 111,342 in 1976. Impairment rates have been lower with each passing decade (see table 10). The decline in the number of impaired persons reported over the years in Egypt is partly attributable to at least three factors:

(a) Declining rates of blindness and eye loss due to improved medical care and preventive health measures;

(b) An increase in problems with the underenumeration of impaired persons when larger populations are surveyed;

(c) An increase in the number of questions asked by enumerators in the field in later censuses, with the question about disability, in each case, being one of the last questions asked. In 1960 in Egypt, for example, 18 questions were asked in the census, and the disability question was number 18. In 1976, 37 questions were asked, and the disability question was number 37. The time an enumerator must spend in each household increases greatly when the number of questions asked is more than doubled. In 1976, twice as many questions were asked of each household member than were asked in 1960, thereby reducing even further the priority concern with the disability question, and probably also reducing the time spent by the enumerator on each question;

(d) Significant changes in the pattern of morbidity and mortality and changes in the age-specific chronic and acute illness patterns, in life-styles, and in the occupational and social milieu of the Egyptian population, which have resulted in a redefinition of impairment and disability which needs to be incorporated into future data collection and analysis on disabled persons.

There is reason to believe that the 1976 census of Egypt markedly underenumerated impaired persons. In table 11, the 1960 and 1976 prevalence rates in Egypt are compared. The fact that the 1976 data for Egypt are derived from a census rather than a sample survey is only part of the

Table 10. Number of disabled persons, by type of impairment, Egypt, 1960 and 1976

Type of impairment	Urban		Rural		Total	
	1960	1976	1960	1976	1960	1976
Sensory						
Blind	23 255	11 042	69 103	21 331	92 358	32 373
Loss of sight in an eye	33 214	8 201	98 920	10 515	132 134	18 706
Deaf and mute	5 072	8 029	11 955	4 317	17 027	12 346
Deaf	---	2 874	---	2 210	---	5 084
Mute	---	1 289	---	2 042	---	3 331
(Deaf and mute or deaf)[a/]		(10 903)		(6 527)		(17 430)
Physical						
Loss of one or both hands	2 174	2 039	4 385	4 701	6 559	6 740
Loss of one or both legs	3 052	2 621	5 069	3 073	8 121	5 694
Mental						
Mental retardation	---	5 270	---	2 403	---	7 673
Other	---	10 140	---	9 227	---	19 367
Total	66,767	51,505	189,432	59,819	256,199	111,324

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, 1963), table 9, pp. 35-36; and Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. I. Total Republic (Cairo, 1980), No. 93-15411 (in Arabic and English), table 35, pp. 461-469.

a/ The "deaf and mute" and "deaf" categories are combined in order to estimate the total number who reported that they were deaf.

Table 11. Prevalence of disability, by type of impairment and by rural/urban, Egypt, 1960 and 1976

Type of impairment	Number of persons per 100,000 population					
	Urban		Rural		Total	
	1960	1976	1960	1976	1960	1976
Sensory						
Blind	236	69	429	104	355	88
Loss of sight in an eye	337	51	614	51	509	51
Deaf and mute	51	50	74	21	66	34
Deaf	---	18	---	11	---	14
Mute	---	8	---	10	---	9
Physical						
One or both hands	22	13	27	23	25	18
One or both legs	31	16	31	15	31	16
Mental						
Mental retardation	---	33	---	12	---	21
Other	---	63	---	45	---	53
Total	677	321	1,175	291	986	304

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, 1963), table 9, pp. 35-36; and Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. I. Total Republic (Cairo, 1980), No. 93-15411 (in Arabic and English), table 35, pp. 461-469.

explanation for such marked underenumeration. When compared to other censuses conducted in the region, the 1976 prevalence rates for blindness in Egypt, for example, are low. The degree of underenumeration which occurred in the 1976 Egyptian census is seen even more clearly when the Egyptian census results are compared with Syrian census results. In contrast to the Syrian 1970 age-specific rates of blindness, for example, the 1976 Egyptian rates are very low, as shown in figure I. That is puzzling, given that the 1960 Syrian and Egyptian age-specific rates of blindness are quite similar, and Egypt's 1960 age-specific rates after the age of 40 are even higher than the Syrian 1960 rates of blindness, as shown in figure I. The Syrian 1960 and 1970 rates are mainly distinguished by a decline in the rate of blindness in 1970 among the very elderly population. Egypt, in contrast, shows a decline in the rate of blindness for every age group after 5-9 years of age, between 1960 and 1976.

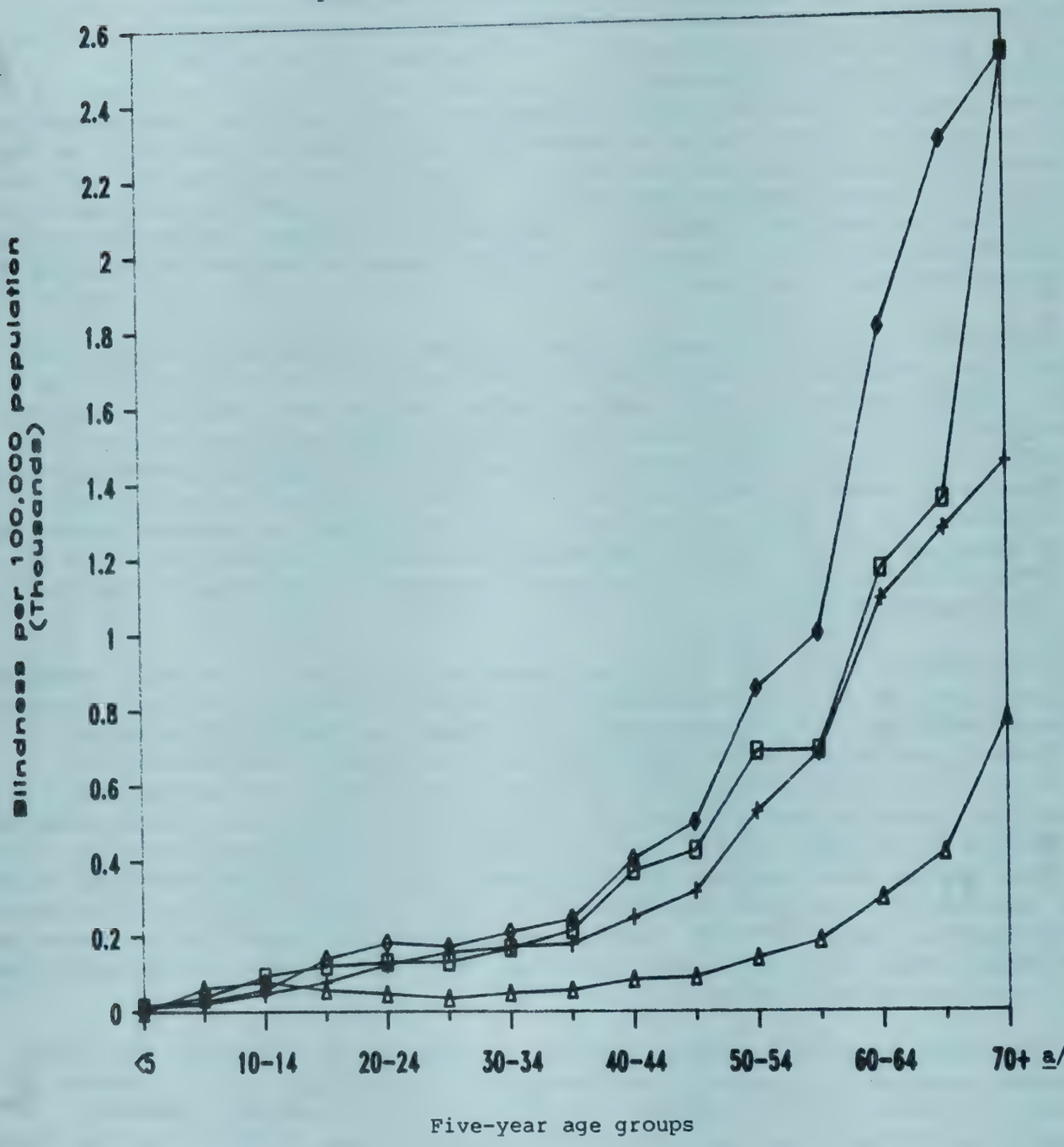
Figure II shows the changing rates of loss of sight in an eye for the Syrian Arab Republic and Egypt between 1960 and 1970 and between 1970 and 1976. Again, there is a very similar pattern in the age-specific rates of loss of sight in an eye for the Syrian Arab Republic and Egypt in 1960. In the 1970s, the Syrian and Egyptian rates are very divergent, with Egypt being substantially lower in every age group (figure II). That suggests that underenumeration of eye loss occurred in the 1976 Egyptian census, since there is no apparent explanation for the marked reduction of prevalence rates of eye-loss in Egypt and the more moderate reduction of the rates of eye-loss in the Syrian Arab Republic.

The similarity in the 1960 prevalence rates in the Syrian Arab Republic and Egypt may be partly attributable to the fact that the Syrian and Egyptian censuses were carried out co-operatively, since the two countries were politically and administratively merged at that time in the United Arab Republic. In both cases in 1960 the same 18 questions were asked, with the disability question being number 18. It is quite likely that, owing both to the degree of emphasis placed upon the subject of disability during the fielding of the censuses and to the general difference in the enormity of the task between the two countries because of their different population sizes and questionnaire sizes (in 1970, the Syrian Arab Republic asked 24 questions and 1976 Egypt asked 37), the census rates for Egypt are substantially below those of the Syrian Arab Republic in the 1970s.

Problems with underenumeration are not limited to censuses, nor do all censuses necessarily severely underenumerate disability. It is a matter of degree. In table 12, for example, Egyptian census blindness rates are compared with the rates found in the Egyptian national Health Interview Survey first-round findings and also with those found in other national surveys and censuses. India was selected for comparison, because the rate of blindness in India should be no less than the rate of blindness in the Near East and North Africa and possibly might even be higher, given the general health status of the Indian population as reflected in its mortality patterns and life expectancy. India is also useful for comparison because it has both census and survey data about disability.

The 1960 censuses of the Syrian Arab Republic and Egypt showed higher blindness rates than did the 1981 National Sample Survey of India or the 1981 Egyptian disability survey (HIS first round results only, as shown in table 12). For example in 1960 the Egyptian census reported a rate of blindness of 355 per 100,000.

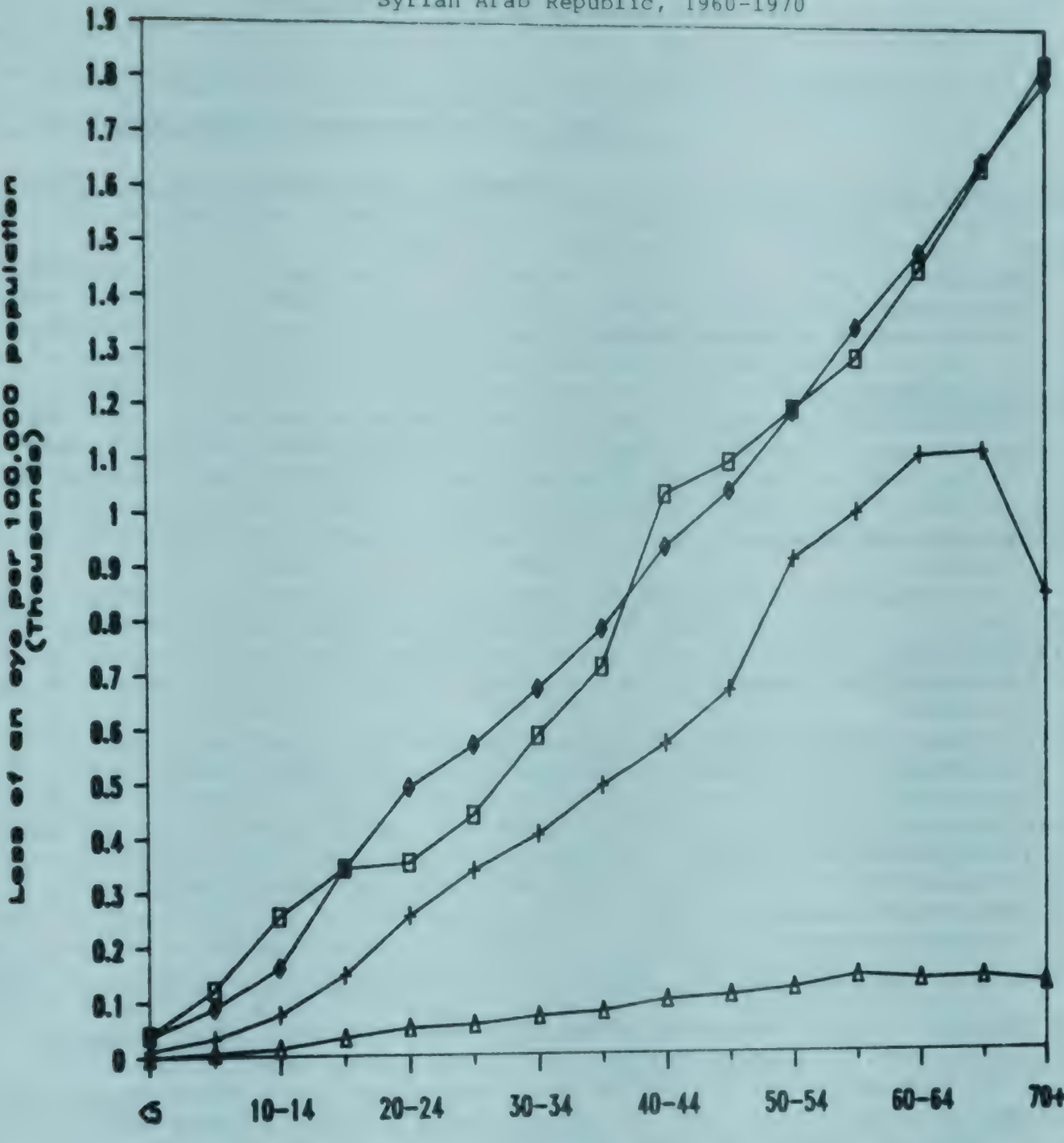
Figure I. Blindness, as reported in population censuses of Egypt, 1960-1976, and the Syrian Arab Republic, 1960-1970



a/ Actual reported figure for the age group 70 years and above for the Syrian Arab Republic, 1960, is 3.3 and for Egypt, 1960, 4.6.

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English); Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English). (See tables IV.4 and IV.37 in annex IV below).

Figure II. Loss of sight in an eye, as reported in population censuses of Egypt, 1960-1976, and the Syrian Arab Republic, 1960-1970



Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English); Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English). (See tables IV.5 and IV.38 in annex IV below.)

Table 12. Prevalence of blindness in Egypt, Syrian Arab Republic and India (1960-1981) and comparison with India National Sample Survey results

Country	Rate of blindness per 100,000 population		
	Urban	Rural	Total
Egypt			
1960 Census	236	429	355
1976 Census	69	104	88
1978-79 Health Interview Survey	..	..	224
Syrian Arab Republic			
1960 Census	213	342	294
1970 Census	138	222	185
India			
1981 National Sample Survey	135	219	..
1981 Census	84	135	..
Ratio of rates:			
1960 Egypt/1981 Indian Survey	1.75	1.96	..
1976 Egypt/1981 Indian Survey	0.51	0.47	..
1960 Syrian/1981 Indian Survey	1.58	1.56	..
1970 Syrian/1981 Indian Survey	1.02	1.01	..
1981 Indian Census/1981 Indian Survey	0.62	0.16	..

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol.2. General Tables (Cairo, SOP Press, 1963), table 9, pp.35-36; Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), table 35, pp. 461-469; and Health in Egypt. Health Profile of Egypt, publication No. 15 (Cairo, 1982), table 8-2, p. 175.

Syrian Arab Republic (United Arab Republic, Syrian Region), Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumuriyya Press, n.d.), table 14, pp. 80-81; Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.), table 15, pp. 82-84.

India, National Sample Survey Organisation, Report on the Survey of Disabled Persons (New Delhi, Department of Statistics, 1983), table A 4.1 (estimates of persons who have no light perception); 1981 Census, p.A12.

The rate of blindness in the Syrian Arab Republic was 294. In contrast, the national survey of disability in India indicated a rate of 135 in urban areas and 219 in rural, both rates being substantially lower than the 1960 census results of the Syrian Arab Republic and Egypt. The ratio of the 1960 Egyptian census rate to the 1981 Indian survey prevalence rate of blindness indicates that for every two blind persons per 100,000 found by the Egyptian census, one was found in the Indian survey.

In 1970, the Syrian census reported a rate of blindness which was in the same range as the rates reported in the 1981 national disability survey of India - that is, 138 in the urban Syrian Arab Republic compared to 135 in urban India, and 222 compared to 219 in the rural Syrian Arab Republic and India. In that case, the ratio of their blindness prevalence rates is approximately 1:1. That finding contrasts sharply with the ratio of prevalence rates from the 1976 Egyptian census to those from the 1981 Indian survey, which was 0.5, or 0.5 blind persons found in Egypt to every 1.0 blind persons found in the Indian survey, per 100,000 population. In contrast to the higher rates mentioned above, the 1976 Egyptian census rates and the 1981 Indian census rates of blindness were notably lower than the 1981 India National Sample Survey rate and also substantially below the 1981 national rate of blindness, as estimated in the first round results of the Egyptian HIS.

It appears from the above-noted findings that census results may be higher or lower or approximately similar to the rates of blindness found with national disability surveys, depending partly upon the quality of census results, rather than consistently lower because of inherent design limitations.

The situations that lead to underenumeration in censuses can be at least partly compensated for by increasing the quality and care of field work, by reducing the number of topics and of questions on them and by enumerating smaller populations. Both the 1981 Indian census and the 1976 Egyptian census (whose prevalence rates for disability were very low), for example, were facing large populations that had to be enumerated in a very short period of time, in comparison to the smaller population that had to be covered by the census staff in the Syrian Arab Republic. In addition, Egypt doubled the number of questions asked in the census between 1960 and 1976. Field problems arising from the size of the questionnaire and from the number of persons covered no doubt diluted efforts to gain information about disability through the census.

Overenumeration

Problems with double-counting in the field were reported in the Lebanon ODS Survey (5.11), due to overlapping of enumerators. However, that was corrected at the editing stage when identical addresses and characteristics for disabled persons were checked.

Overreporting or misreporting of disabled persons was also suspected in the 1978 national survey of handicapped persons in Jordan (4.7). The extent of error which was identified varied according to the type of disability reported. For example, 200 mentally retarded persons were randomly selected from the 4,878 mentally retarded persons originally reported in the survey.

When psychologically tested, over 97 per cent were found to be either severely or moderately retarded and the remaining 3 per cent either borderline or close to normal in intelligence (4.4, p.51). While that suggests a small overcount for the mentally retarded identified in the survey, an overall overcount cannot be inferred, because the number of mentally retarded persons who were overlooked by the survey is unknown. In survey work of that kind, an overcount of 3 per cent is a relatively small error. Nonetheless, users of the data should be aware that some margin of error is inevitable and qualify their interrelation and use of the results accordingly. In the present illustration of the mentally retarded, for example, users should not consider survey results as a definitive measure of disability in individual cases.

Using the same survey results in Jordan, 160 deaf persons were selected randomly for re-examination from the deaf population identified in 1979 survey. Eight of the 160 were shown, through medical investigation and testing, not to be deaf. Six of the eight were mentally retarded, with speech difficulties, and the remaining two had normal hearing. Thus, 1.5 per cent of those re-examined were found to be normal and 3.75 per cent found not to be deaf but to have other disabilities. That suggests some overcounting of deaf persons as well as some confusion by lay enumerators over whether persons who respond poorly and who have speech difficulties are really deaf or have other impairments (4.2, p. 93). Of 100 amputees randomly selected from the registered population of 696 who were identified in the survey, all amputations were medically confirmed (4.5). Thus it appears that there was no overcounting of amputations.

The above evidence indicates relatively low or very low levels of overcounting of impairments. However, for less visible impairments, greater difficulties are encountered by lay reporters in distinguishing between impairments such as mental retardation and mental illness or deafness and mental retardation. Such problems are inherent in some classifications, which contain subtle distinctions which cannot always be made simply through short-term observation, even by professionally trained individuals. For example, speech loss may be due to deafness, retardation or mental illness.

Variations in age/sex distributions

One way to search for underlying themes or patterns in the various prevalence rates and distributions of impairments is through examination of their age/sex distributions. One common demographic technique used to display the age and sex patterns of populations is the age/sex pyramid, which shows either the number or percentage of the total population in each age and sex group, through the use of adjacent histograms, one for females and one for males, on each side of a vertical axis. The shape of the two histograms shows the population's age and sex structure. Age/sex pyramids of selected total populations of countries and some age/sex pyramids of impaired populations, by type of impairment, are compared below.

National age/sex pyramids

The populations of most countries in the developing world are youthful, with large proportions under the age of 15. The populations of the case study countries in the present report are no exception. For example, figure III

shows age/sex pyramids for the Syrian Arab Republic in 1970 and for Egypt in 1976. In both cases, the pyramids are wide at the bottom, indicating that large proportions of both females and males are under 15 years of age. That suggests that the populations are growing, since there are increasingly larger proportions of persons in younger age groups. The two age/sex pyramids also indicate that the ratio of females to males is approximately equal for all of the age groups.

In sum, age/sex pyramids of total populations show:

(a) The shape of the age and sex distribution of the population;

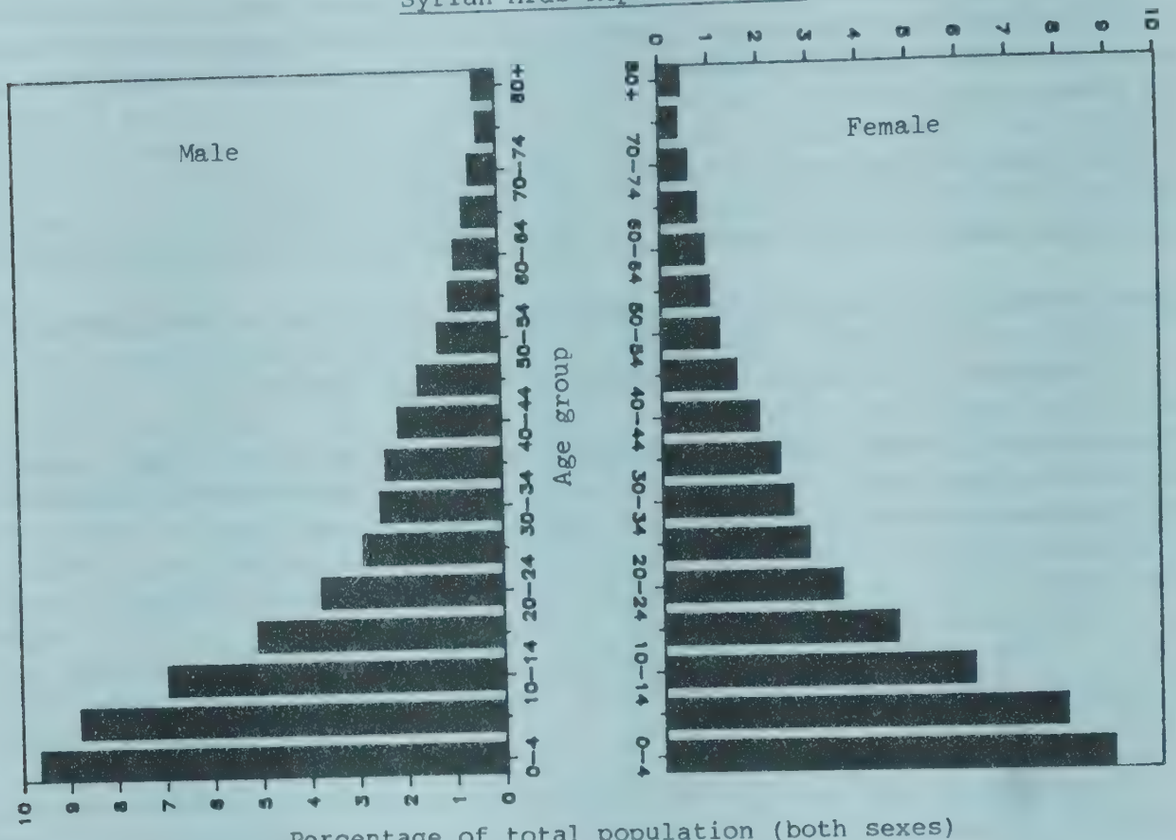
(b) Whether the population is growing, stabilizing or declining;

(c) The ratio of males to females in each age group.

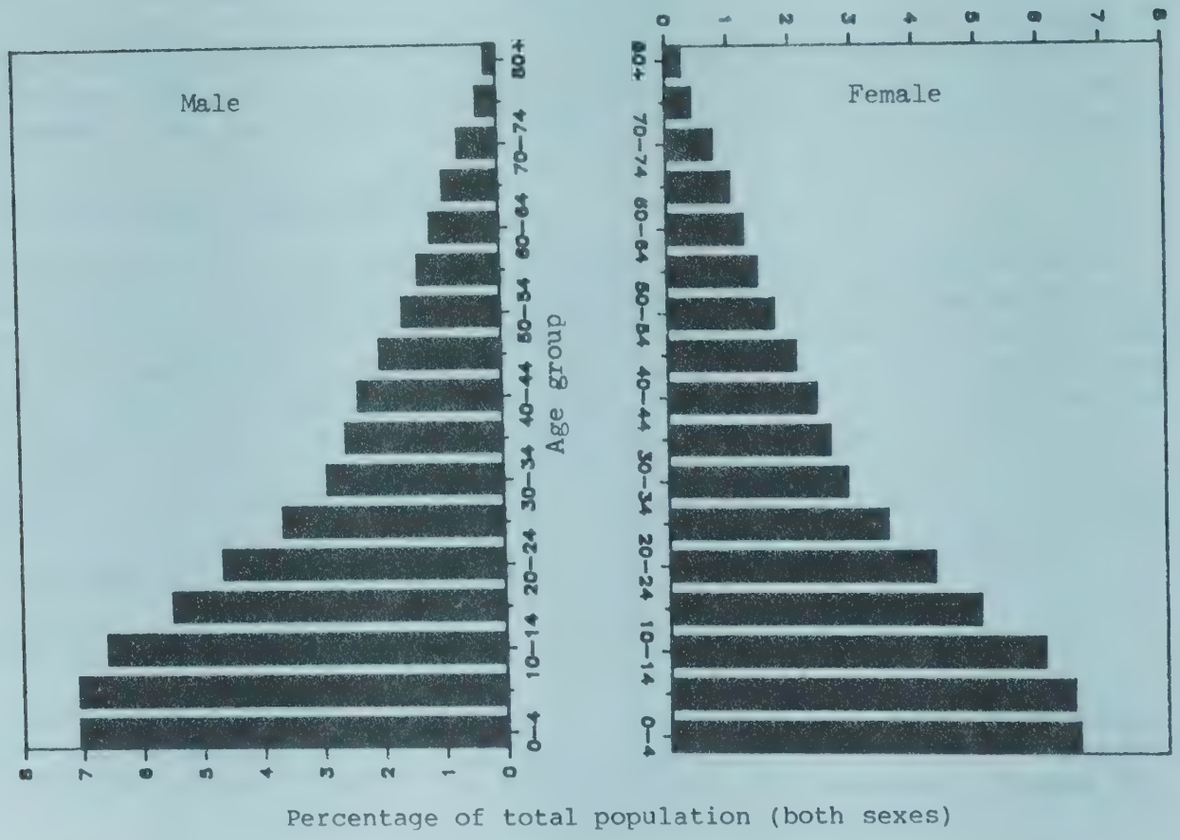
The pyramids for the Syrian Arab Republic and Egypt indicate that their populations are generally younger, growing and are approximately balanced between females and males in each of the various age groups.

Figure III. Age/sex pyramids (total population) for the Syrian Arab Republic, 1970, and Egypt, 1976

Syrian Arab Republic, 1970



Egypt, 1976



Source: World Population Prospects: Estimates and Projections as Assessed in 1982 (United Nations publication, Sales No. E.83.XIII.5).

Age/sex pyramids of the visually impaired population

Blindness. Age/sex pyramids of blind populations as reported in population censuses of the Syrian Arab Republic (1960 and 1970) and Egypt (1960 and 1976) are shown in figures IV and V. The pyramids have generally a reverse shape from top to bottom compared to those for the total populations, shown in figure III. The majority of blind persons are elderly, so that the age/sex distribution is shaped like a triangle with a wide top and a small, pointed base. An exception to the trend of increasing blindness with age is found for Egypt, 1976, where there is an unexplained increase of reported blindness at earlier ages, especially among children 10-14 years of age, resulting in an age/sex pyramid shaped like an hourglass. The change in age distribution from 1960 to 1976 could result from a real increase in blindness among the younger population in Egypt, improved reporting of blind children, or simply from problems in the 1976 census data on disability. That suggests the need for further investigation, and the Egyptian Health Interview Survey data on disability could be used to examine the issue.

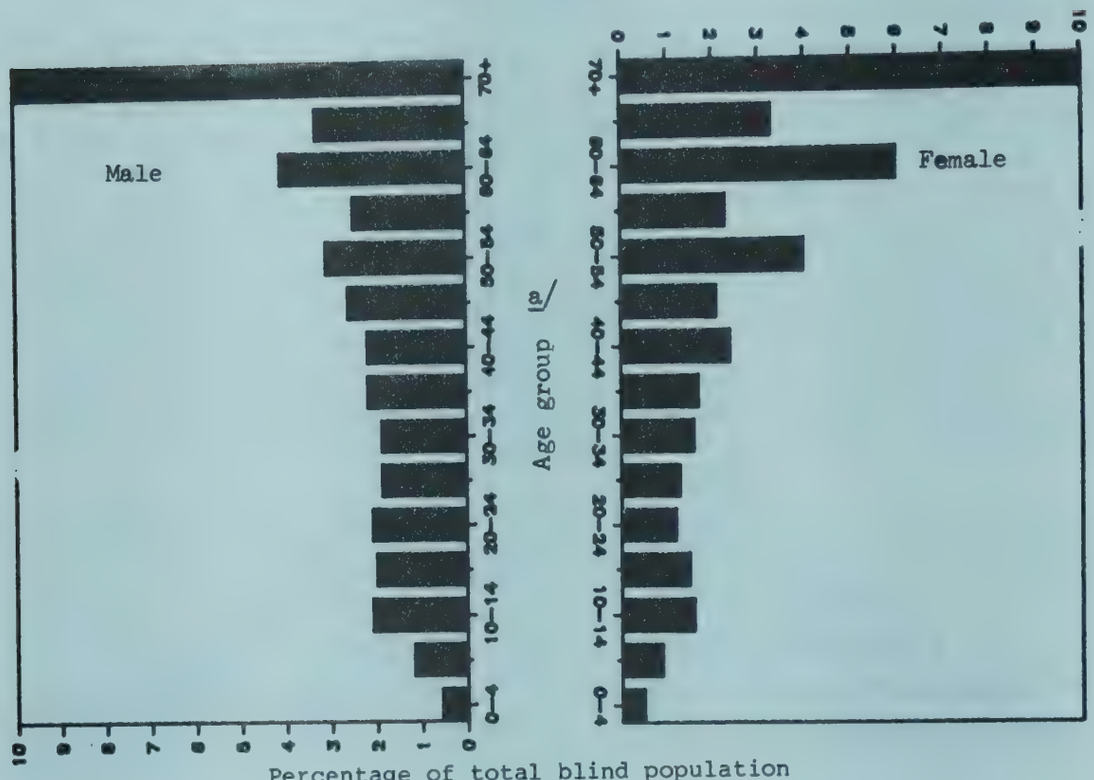
The overall prevalence rate of blindness in the Syrian Arab Republic, according to census results, declined from 194 to 185 per 100,000, between 1960 and 1970. In Egypt, the prevalence of reported blindness was 1,325 per 100,000 in 1907, 355 in 1960, and 88 in 1976, according to census reports. In 1981, preliminary Health Interview Survey results showed a rate of 224. The rate of decline in overall prevalence of blindness is reflected in more detail in the age/sex pyramids of the blind populations. The most significant changes in the proportions that are blind are reflected in the changes from 1960 to the 1970s in the elderly populations, 70 years old and over. For example, in the Syrian Arab Republic in 1960, 38 per cent of the entire reported blind population was 70 years old and over. In 1970, that age group accounted for approximately 22 per cent of the total reported blind population. In Egypt in 1960 approximately 17 per cent of the total blind population was 70 years old and over, declining to 11 per cent in 1976.

The decline in the proportion of the blind population that is elderly is primarily attributable to reduction in the incidence of communicable diseases such as trachoma in the past 25 years. After repeated exposure and lack of medical treatment, trachoma may lead to blindness. The incidence of communicable eye illness such as trachoma among younger populations has been substantially reduced through the strengthening of public health measures, increased access of the public to preventive medical care and new treatment programmes for such infectious illnesses. Older populations were heavily affected by those communicable diseases in the past, but younger populations are not having similar patterns of eye illnesses. Communicable disease rates are substantially lower, so that the proportions of the total blind population that are elderly have declined.

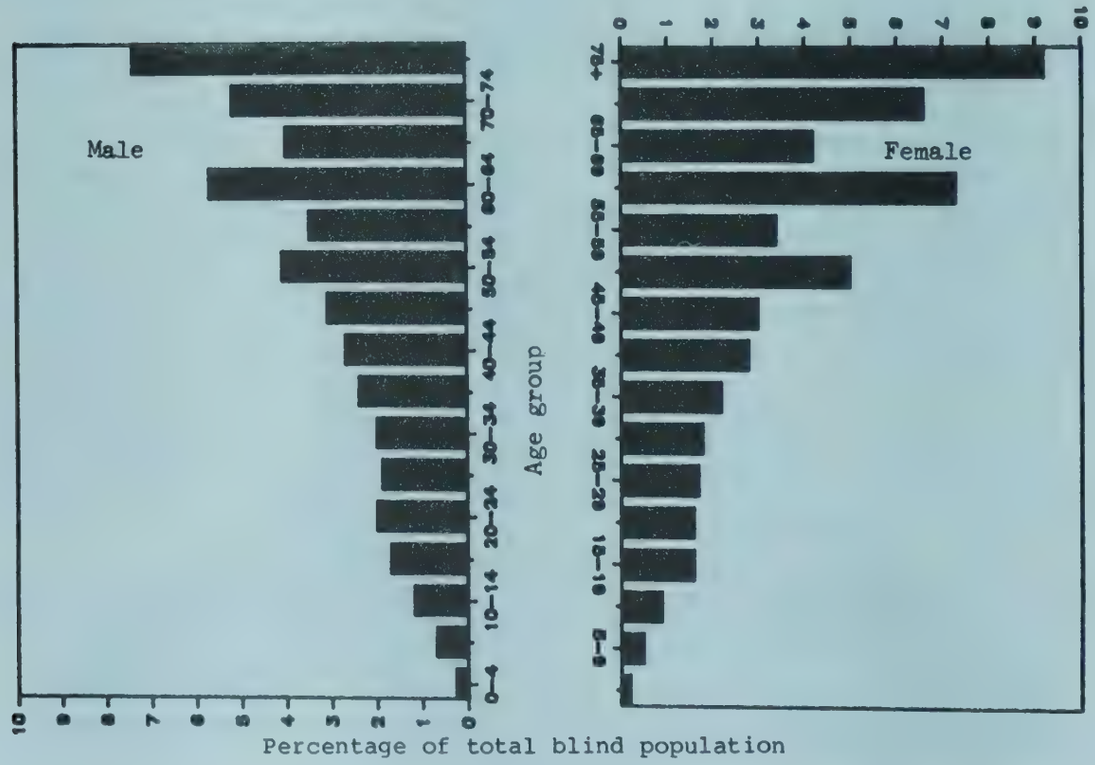
While there has been a radical shift in illness patterns away from communicable eye illnesses, a large proportion of the blind population continues to be found in older age groups, primarily because of health problems associated with elderly populations - for example, chronic illness, and general aging patterns which lead to loss of sight. In addition, as developing countries experience demographic transitions from declining

Figure IV. Age/sex pyramids of blind population of the Syrian Arab Republic and Egypt, 1960

Syrian Arab Republic, 1960



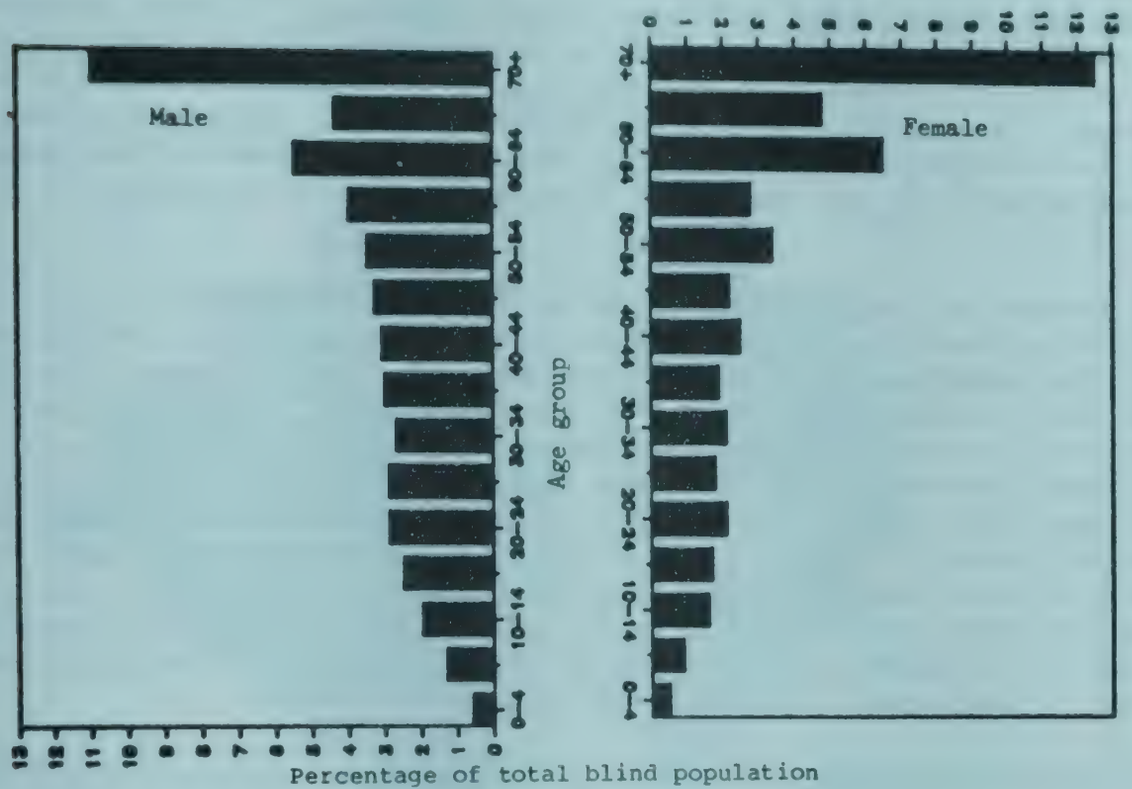
Egypt, 1960



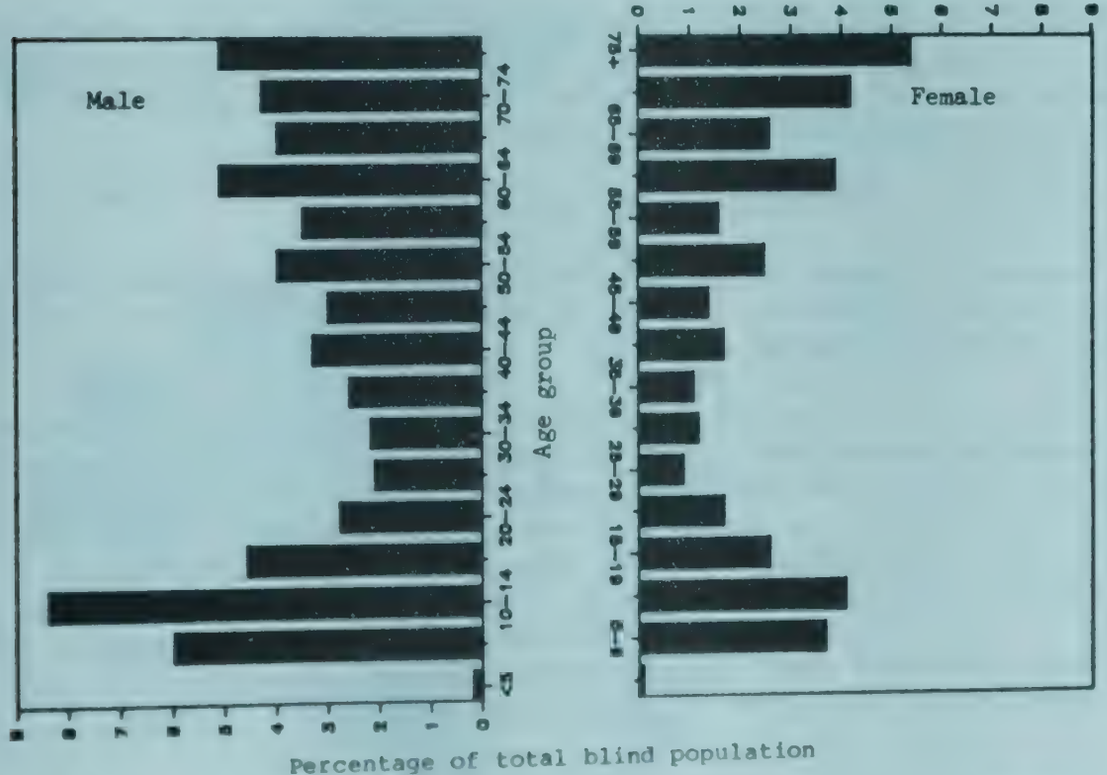
Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic). (See tables IV.4 and IV.37 in annex IV below.)

Figure V. Age/sex pyramids of blind populations of the Syrian Arab Republic, 1970, and Egypt, 1976

Syrian Arab Republic, 1970



Egypt, 1976



Sources: Syrian Arab Republic, Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English); Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See tables IV.4 and IV.37 in annex IV below.)

fertility and mortality rates, which result in very youthful and growing populations, to low fertility and mortality rates, which result in stable or declining populations with larger proportions being elderly, it is possible that the number and proportions of elderly blind persons will remain high, even though the overall rates of blindness decline. That is because, as populations grow older, they will have larger numbers of elderly persons than they had in the past. Lower rates of blindness among larger elderly populations may still result in similar or even greater numbers of persons having visual impairments than when rates were higher. For that reason, it is important to consider both rate changes and age/sex changes in the proportions of impaired persons in each age group when examining the magnitude of any impairment problem.

With respect to the ratios of females to males in blind populations by age group, it appears that higher proportions of the elderly blind are women than men. For example, of the total reported blind population of the Syrian Arab Republic in 1960, 22 per cent were women who were 70 years old and over and 16 per cent were men in that age group. Also, overall, there was a slightly larger proportion of the total population of blind persons who were women than men (52.5 vs. 47.5 per cent, respectively). The sex ratio in the blind population was 90 males to every 100 females in the Syrian Arab Republic in 1960 and 92 males per 100 females in Egypt in 1960. The fact that a larger proportion of blind persons among the elderly is female may be at least partly attributable to differential mortality by sex. Further discussion of sex differences is contained in chapter III below.

Loss of sight in an eye. Figure VI shows age/sex pyramids of populations that have lost sight in one eye. From the results of the four censuses shown in figure VI, the following observations may be made:

(a) There are marked differences between the sexes with respect to loss of sight in one eye. Unlike blindness, which has a relatively similarly shaped distribution for males and females, the population with loss of sight in one eye is heavily skewed towards males;

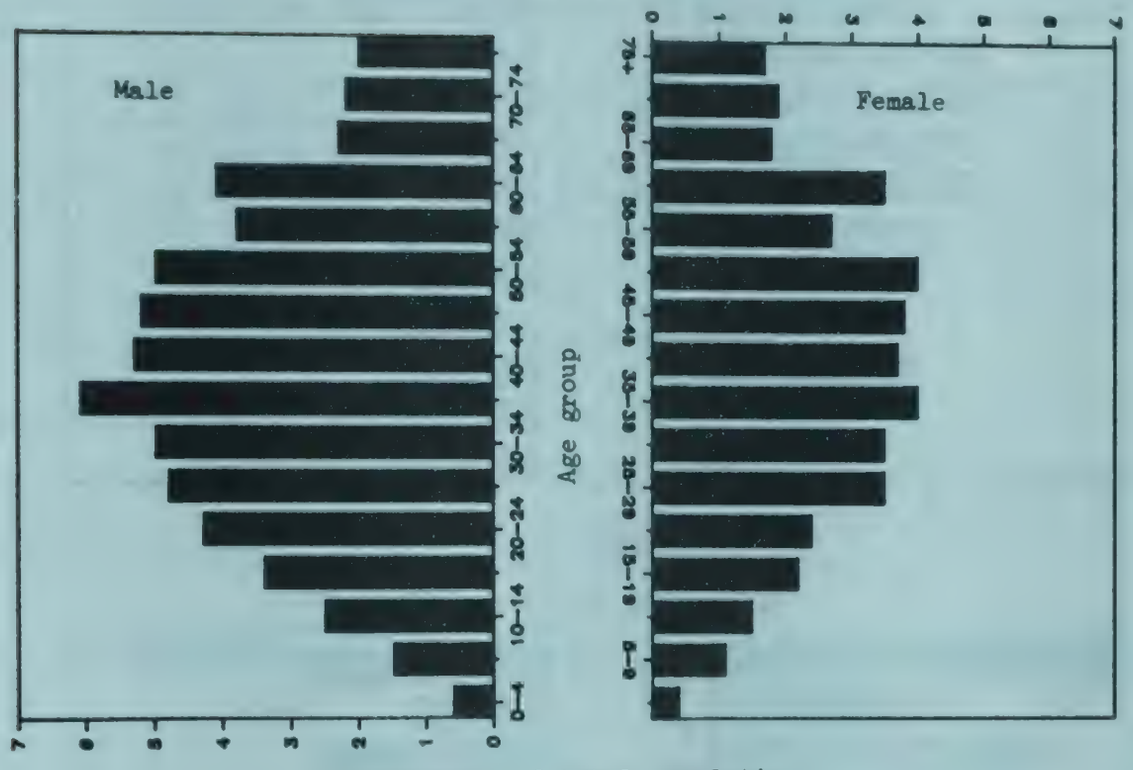
(b) The majority are middle-aged men;

(c) The overall shape of the age/sex pyramid is reasonably consistent for each of the four censuses, subject to varying degrees of differences in sex ratios of males to females.

Sex differences in reported loss of sight in one eye may be partly due to sex differences in occupational hazards associated with certain predominantly male occupations such as working with rocks, steel or guns without adequate protection. For example, in Egypt and the Syrian Arab Republic in 1960 the sex ratios of the reported populations that lost sight in one eye were 154 and 139 males per 100 females, respectively. The sex ratio for the Syrian Arab Republic in 1970 was 176. The 1976 Egyptian sex ratio suggests that in that case especially impaired females were underreported, since the sex ratio was 345 males reported to have lost an eye to 100 females so reported.

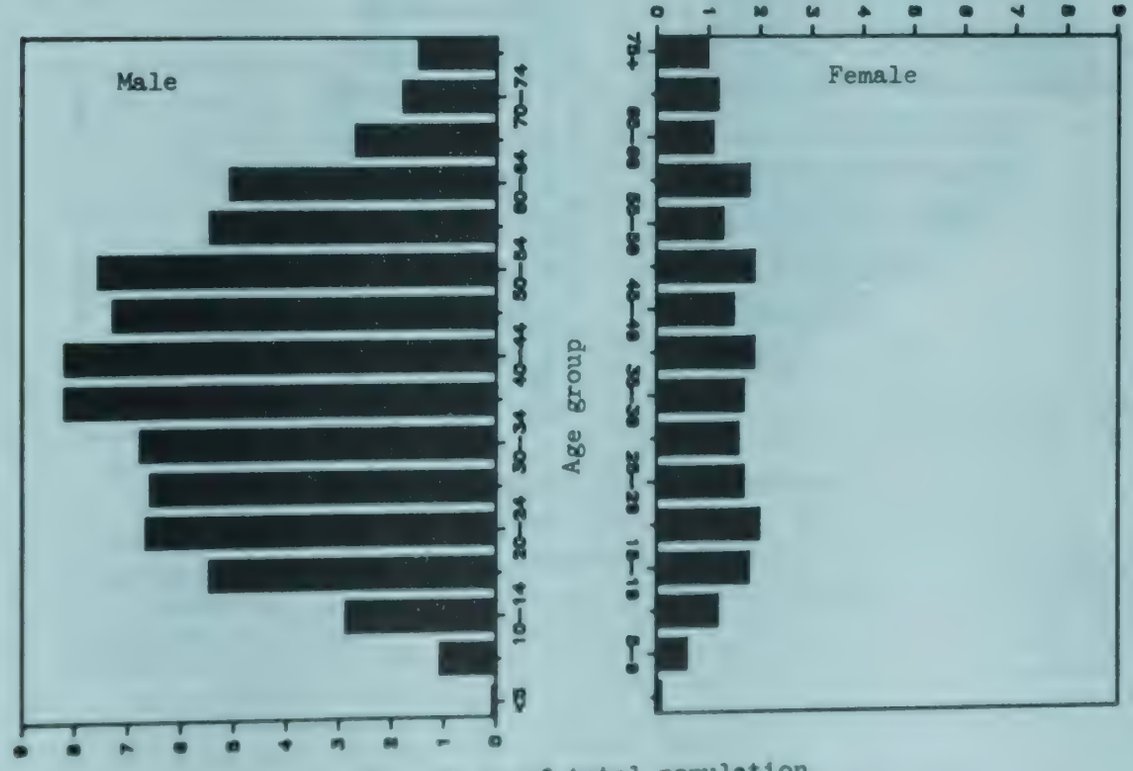
Figure VI. Age/sex pyramids of populations of persons who have lost sight in an eye, in Egypt, 1960 and 1976, and the Syrian Arab Republic, 1960 and 1970

Egypt, 1960



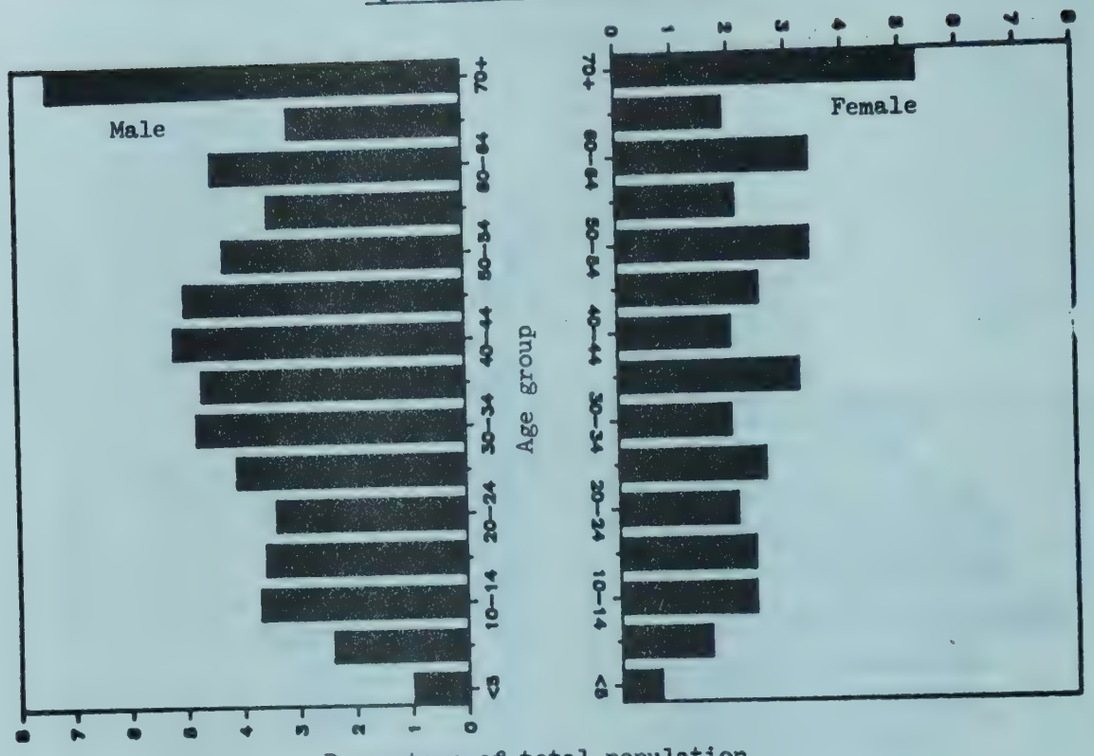
Percentage of total population of persons who have lost sight in an eye

Egypt, 1976



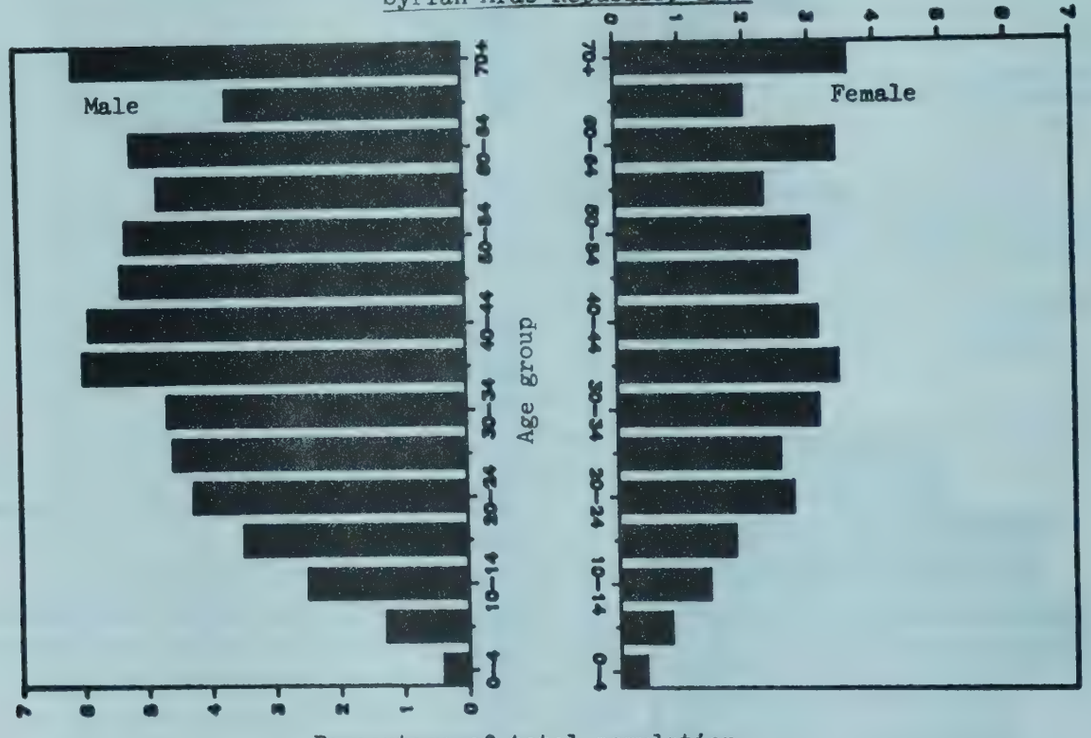
Percentage of total population of persons who have lost sight in an eye

Syrian Arab Republic, 1960



Percentage of total population
of persons who have lost sight in an eye

Syrian Arab Republic, 1970



Percentage of total population
of persons who have lost sight in an eye

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English); Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English). (See tables IV.5 and IV.38 in annex IV below.)

In addition to high sex ratios, the populations who have lost sight in an eye differ from the blind populations in their age distributions. Whereas the blind populations are predominantly composed of elderly persons, the populations of persons who have lost sight in an eye are more middle-aged. For example, in the Syrian Arab Republic in 1960 and 1970, the populations aged 30-54 that had lost sight in an eye were 39 and 41 per cent of the total populations that had lost sight in an eye. In contrast, the same age group constituted 22 and 24 per cent of the total blind populations in the Syrian Arab Republic in 1960 and 1970, respectively.

The shapes of the four age/sex pyramids shown in figure VI are reasonably similar, given the expected differences in shape attributable to the grouping of persons aged 70 and older in the Syrian Arab Republic and the groupings of persons aged 70-74 and 75 and older in Egypt. The consistency in the shapes of the pyramids for both blindness and eye loss suggests that the underlying distributions of the various impairments might be predictable, to a certain extent, when countries are approximately similar with respect to levels of economic development and in their general health status.

Age/sex pyramids of the deaf and mute populations

With respect to deaf-mute populations identified in the censuses of Egypt and the Syrian Arab Republic, for which age/sex pyramids are shown in figure VII, the following observations may be made:

(a) The populations reported as both deaf and without speech were youthful, and the large majority of those populations were under the age of 20 years;

(b) The age/sex pyramids show larger proportions of deaf-mute children aged 0-4 and 5-9 years, when compared to the proportions of the population in those age groups among the blind or the population having sight in one eye only (figures IV - VI);

(c) The pyramids are similarly shaped. Each of them is moderately triangular and broad-based. However, for both eye loss and deaf-mute populations the base of the triangle is sharply reduced at the bottom rung, where the proportions of very young infants who are deaf and mute are shown. Given the limited language skills of very young children in general, it is not surprising to find that very young deaf children who have early hearing and language impairments are largely unreported;

(d) As with the populations of persons who have lost sight in one eye, the pyramids show that among the deaf and mute populations, the proportions that are male are much larger than the proportions that are female. For example, in Egypt and the Syrian Arab Republic in 1960 the sex ratios were 151 and 250 males to 100 females, respectively. In Egypt in 1976 and in the Syrian Arab Republic in 1970, the sex ratios were 151 and 235 males to 100 females, respectively. Neither Egypt's nor the Syrian Arab Republic's sex ratio in their deaf and mute populations changed very much from one census to the next.

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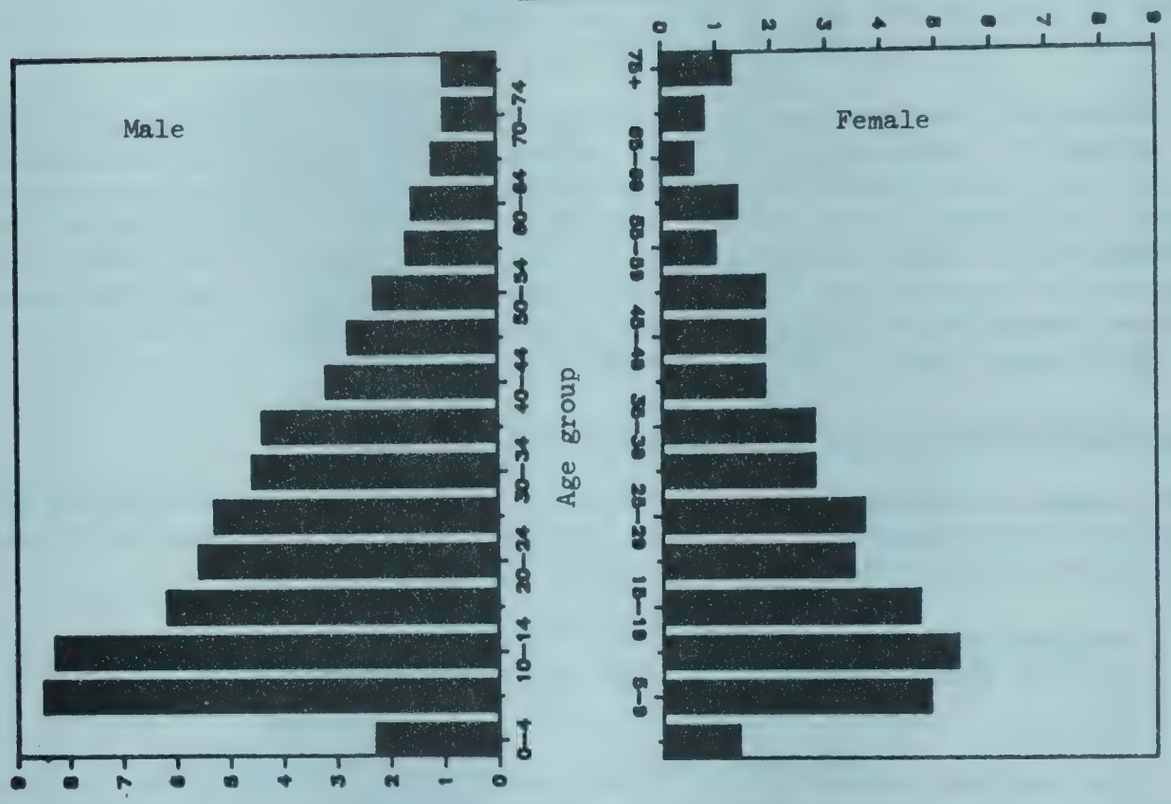
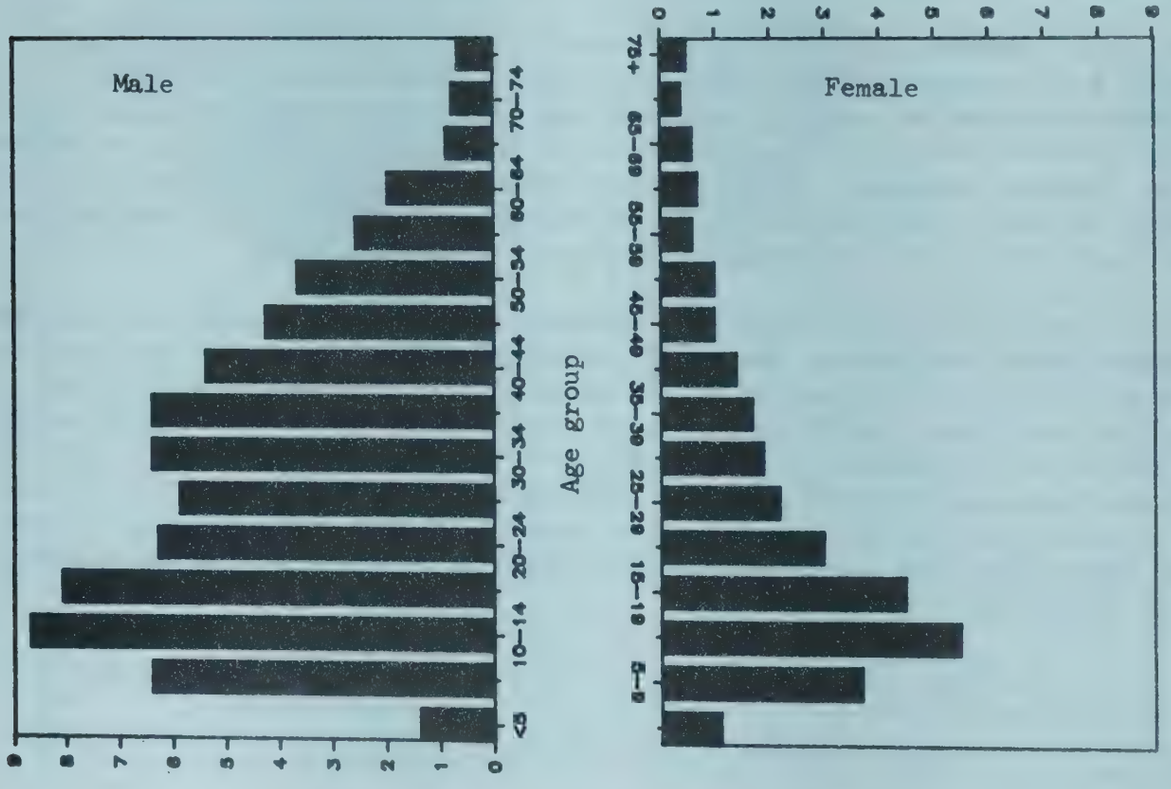
Figure VII. Age/sex pyramids of populations of persons who are deaf and mute, Egypt, 1960 and 1976, and Syrian Arab Republic, 1960 and 1970

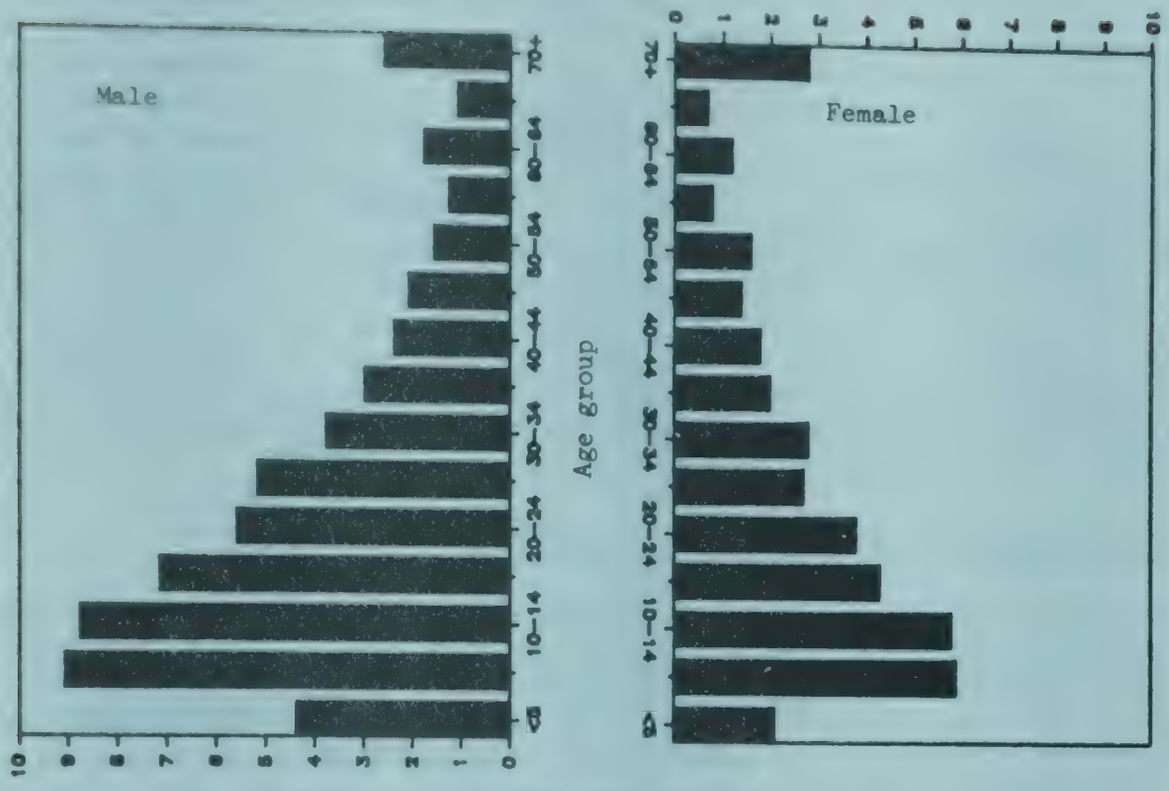
Egypt, 1960



Egypt, 1976

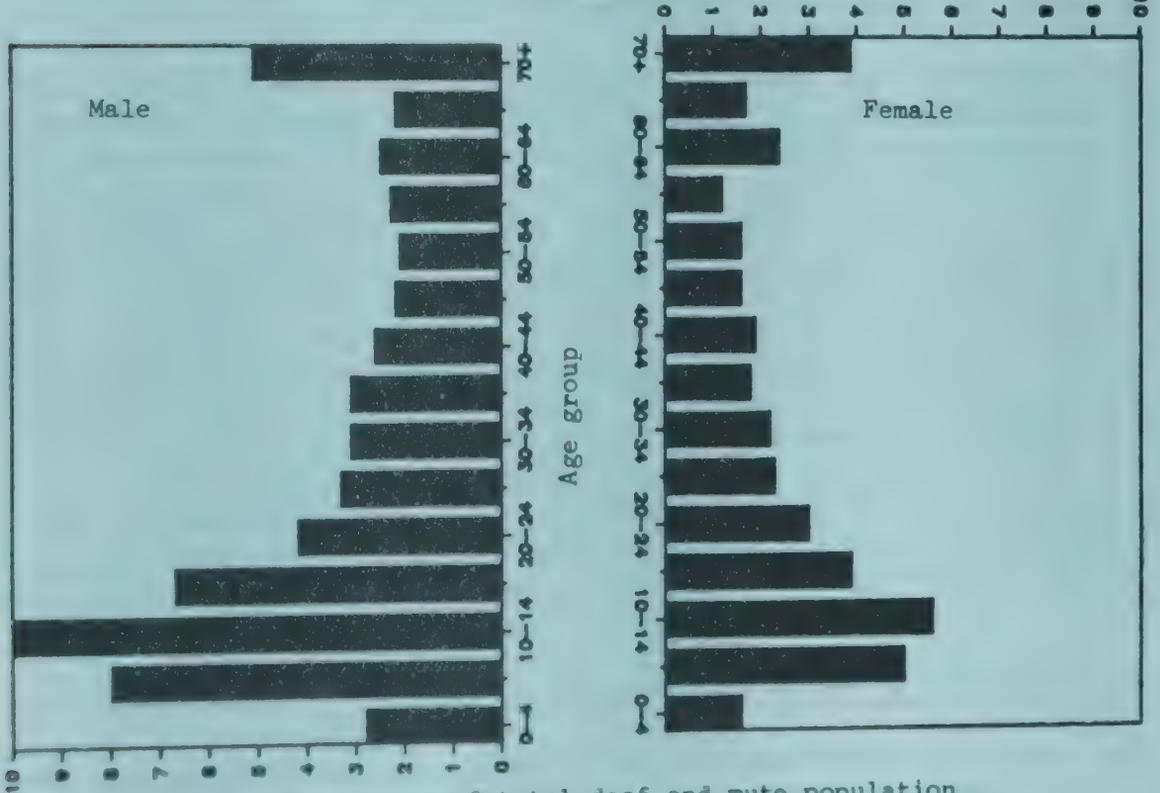


Syrian Arab Republic, 1960



Percentage of total deaf and mute population

Syrian Arab Republic, 1970



Percentage of total deaf and mute population

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English); Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English). (See tables IV.6 and IV.39 in annex IV below.)

Egypt in 1976 had an unusual shape in the age distribution of the male deaf and mute population which is not found in the other data sets. It shows a moderately bimodal distribution of deaf and mute men, with larger proportions in the 10-19-year-old and 30-39-year-old age groups than at any other age. Perhaps the bimodal distribution is a result of some distortion in the data or possibly it reflects an unusually high prevalence of deafness among the middle-aged male population that is attributable to an epidemic of some kind many years earlier. However, these 30-39-year-old men in 1976 would have been approximately in the 15-25-year-old category at the time of the 1960 census. The shape of the pyramid for the 1960 population does not suggest that there were unusual numbers of deaf and mute men among 15-20-year-olds at that time. Further analysis of the rates is required in order to gain a clearer perspective on the reasons for the changes between the two censuses. One possibility is to examine the data further using the Health Interview Survey data on disability in Egypt.

Age/sex pyramids of the mentally impaired

Figure VIII presents age/sex pyramids of mental disability for the Syrian Arab Republic in 1970 and Egypt in 1976. Again, like the deaf and mute populations, the reported populations of mentally impaired persons are youthful, with large proportions under 20 years of age. The overall shape of the pyramid is triangular and wide-based, although truncated below 10 years of age. Like deafness, mental impairments are quite often not well recognized or defined, even by parents and close family members, until after the child reaches school age. Perhaps in some cases, school served as a screening process by which the diagnosis was made.

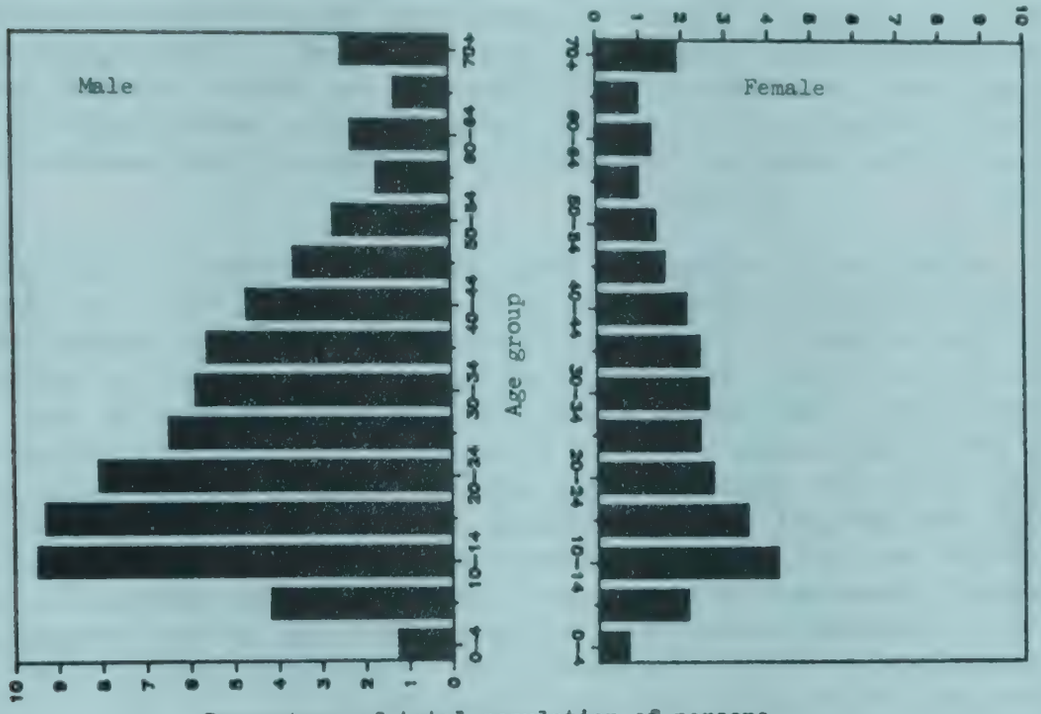
In both pyramids, the populations are comprised primarily of males, suggesting underenumeration of females as well as a male to female sex ratio over one associated with mental retardation. Given the social pressures upon females to appear marriageable, as well as the generally lower proportions of girls than boys who attend school and the unacceptability of public discussion with strangers about the personal problems of women, it is possible that females are seriously underreported. The sex ratio, for example, of mentally impaired males to females in 1976 was 223 to 100 in the Syrian Arab Republic and 325 to 100 in Egypt. Sex-ratio comparisons of census and survey results might be tried in order to discern the degree of improvement in identification of impaired females that can be obtained through design changes. That possibility will be taken up further in chapter III. In any case, it is clear that more detailed probes are required for identifying females who are mentally impaired than are required for males. That is in addition to the need for survey probes about mental impairments because of the sensitivity of the question.

Age distribution of males and females

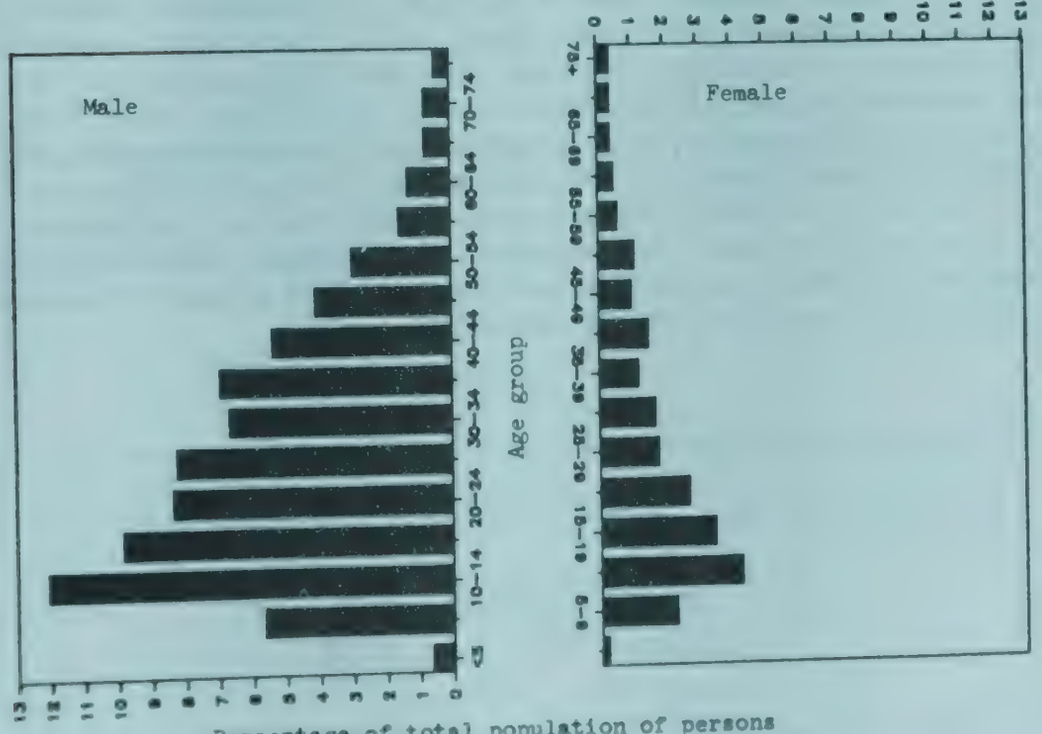
Another way to present age distributions is by calculating the percentage distribution of impaired persons in each age group separately for each sex rather than for each sex relative to the total population. In that approach, the age distributions of male and female impaired populations are calculated and then compared.

Figure VIII. Age/sex pyramids of populations of persons who are mentally impaired, Syrian Arab Republic, 1970, and Egypt, 1976

Syrian Arab Republic, 1970



Egypt, 1976



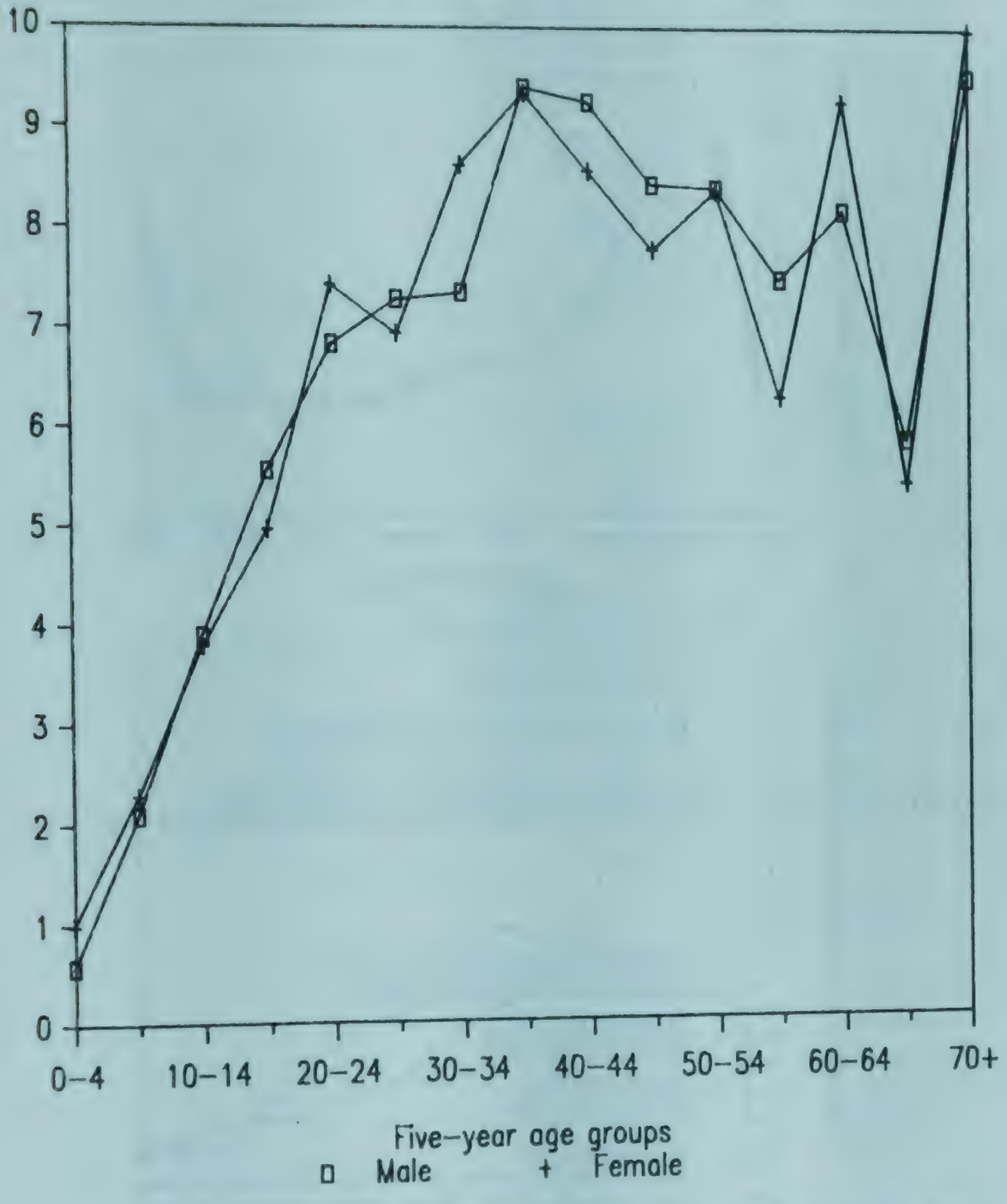
Sources: Syrian Arab Republic, Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English); Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See table IV.9 and IV.41 in annex IV below.)

Figure IX shows age distributions for males and females with loss of sight in one eye in the Syrian Arab Republic. The unequal sex ratio is evident in figure VI. The question then arises whether the age distribution reported among females is different from the age distribution of males. In other words, are all ages of females with loss of sight in one eye underreported, or is there one particular age group that appears to be particularly underreported? Figure IX indicates that the distribution of females by age group is very similar to that of males. That suggests that women in general were less likely to be reported as having loss of sight in one eye, rather than any particular age group of women being over- or underrepresented - for example, the elderly or women of marriageable age - relative to men.

Figure X shows the percentage of deaf and mute persons by age group for each sex for the Syrian Arab Republic, 1970, and Egypt, 1976. In the Syrian Arab Republic, the symmetry of the age distributions between males and females is quite evident. In Egypt, the shapes of age distributions for males and females are different. For males, there is a bimodal pattern of age distribution, while for women there is a unimodal and youthful pattern. The reasons for the different distributions are not clear. Perhaps when the Egyptian Health and Medical Profile results are ready for tabulation, tables can be constructed so that the age groups presented for the survey are similar to the age groups presented in the census and they can be compared. Another possibility is to regroup census data to match the age groups presented in the survey for comparison of their distributions. Currently they are not grouped in a comparable way by age and sex (see figure XI).

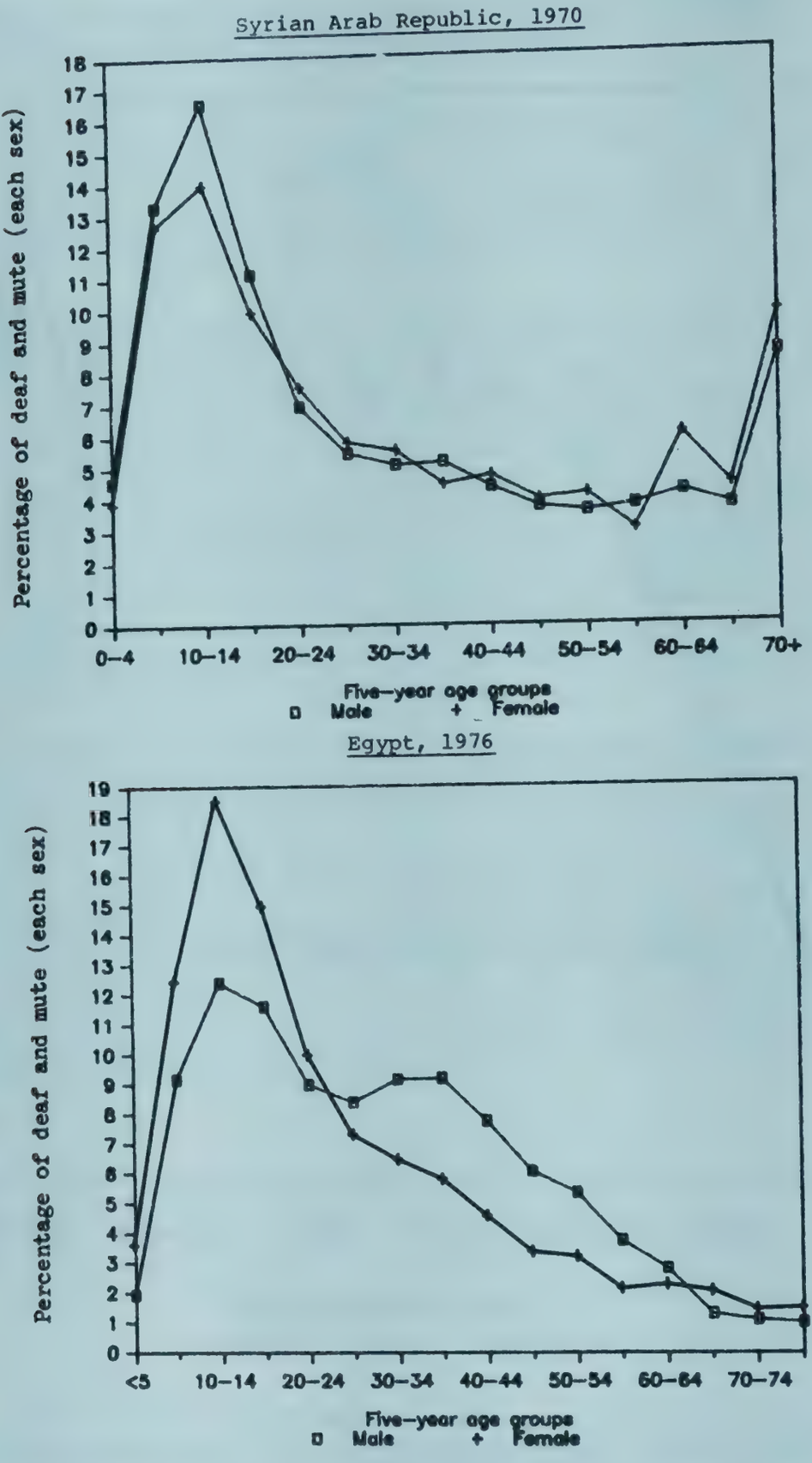
The present chapter has highlighted some methodological issues faced by national statistical services and users in ministries of health and social welfare and private organizations when measuring and studying disability. The censuses and surveys examined have been found to be rich with opportunities for scientific study of disability through the use of statistics. At the same time, numerous methodological issues concerning classifications, field instructions, design differences, and problems with underenumeration, overenumeration, misclassification, and anomalous age/sex differences need to be considered. It is hoped that the present discussion of methodological problems will stimulate interest and support for further methodological work and for preparation of data collection and analysis in a more standardized way so that more comparable results can be obtained.

Figure IX. Loss of sight in an eye: percentage distribution, each sex, Syrian Arab Republic, 1970



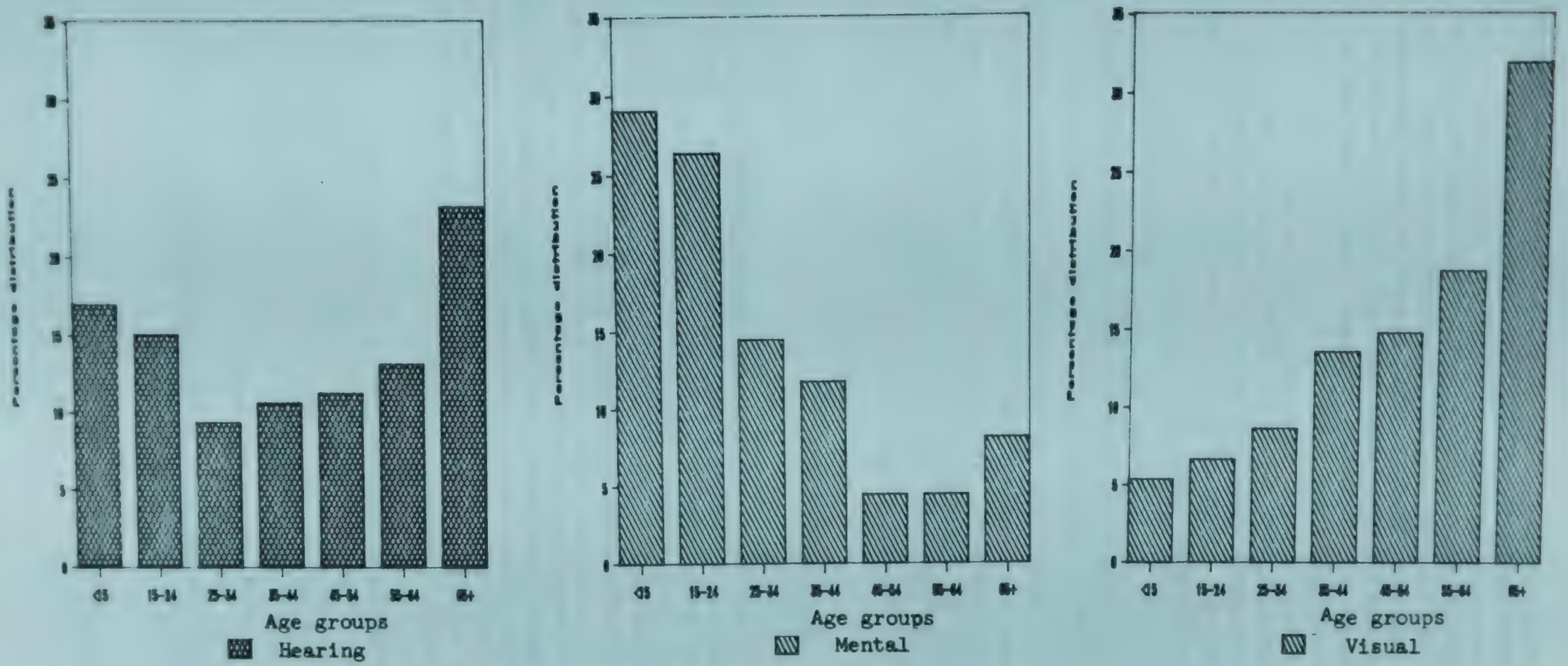
Source: Syrian Arab Republic, Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English), table 27, pp. 175-176.

Figure X. Deaf and mute: percentage distribution, each sex, Syrian Arab Republic, 1970, and Egypt, 1976



Sources: Syrian Arab Republic, Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English), table 27, pp. 175-176; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English), table 36, p. 471.

Figure XI. Selected disabilities: distribution by age, Egypt, 1981



Source: Egypt, Ministry of Health, Health Interview Survey: Results of the First Cycle. Health Profile of Egypt, publication No. 16 (Cairo, 1982).
(See also table IV.20 in annex IV below.)

III. NATIONAL ESTIMATES OF NUMBERS OF DISABLED PERSONS AND THEIR SELECTED SOCIO-ECONOMIC CHARACTERISTICS

Detailed tables of statistics on disabled persons were prepared in the course of the case studies for each of the countries included. The tables are presented in annex IV. The present chapter presents findings based on those data, discusses problems of interpretation and analysis that arise from the methodological problems considered in chapters I and II above, and offers examples of series and indicators that can be prepared with the data.

The present report compares the problems of compilation, evaluation and analysis of disability data collected using different survey methods. Careful preparation of relatively standardized cross-tabulations is one important way to examine the consistency and reliability of findings under different design conditions. Whereas little can be done about the sample design and procedures used once the field work for a survey is completed, there is typically much that can be done with respect to grouping age categories, for example, or evaluating data quality in careful secondary analysis.

The analysis and evaluation of survey design, field procedures and data collection instruments currently in use are prerequisites to improved scientific study of disability. It is hoped that the present analysis of various census and survey designs and the data collected using them will provide a basis for further work and will promote strategies for improved data collection on disability.

Data limitations

Design differences

Differences in the design of data collection programmes and their implications for compilation and analysis were discussed in chapter II. For example, census data can readily be used to calculate national prevalence rates by age and sex, rural/urban residence, and so on. In contrast, small-scale surveys are generally limited to showing the percentage distribution of impaired persons by category of impairment (for example, see tables IV.31-IV.33).* Another approach is a national registration survey. If the assumption can be made that a registration survey or on-going system is complete and up-to-date, then prevalence rates can be estimated, using a denominator from another data source. However, special methods are needed to estimate the degree of completeness of registration, such as comparisons with registered lists of impaired persons, available national sample survey estimates of impairment or census results.

If the assumption that registration is complete cannot be made and percentage distributions of impairments are used rather than prevalence rates, then differences found in the percentage of the total impaired population that has any particular type of impairment may be partly determined by the number and types of impairment categories used. In general, the larger the number of impairment categories used, the more impaired persons who are reported, which affects the denominator in the calculation of a percentage distribution. As examples, one survey in Jordan used 14 impairment categories, the ODS survey in Lebanon used 28 categories and the CARITAS survey in Lebanon, eight.

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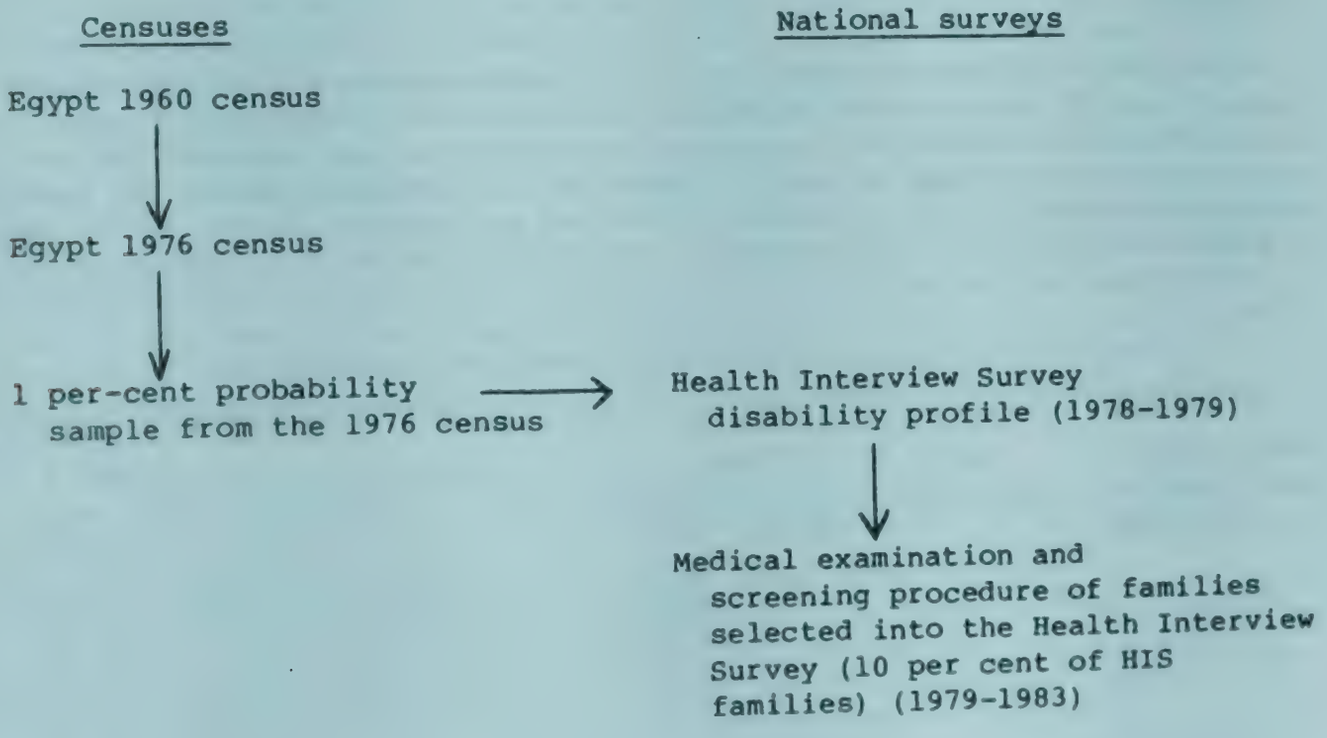
* Table numbers preceded by "IV" refer to tables in annex IV below.

Coverage is also affected by the use of subcategories. In the case of mental impairment, for example, both mentally retarded and mentally ill were to be reported in one case, while in another the subcategories were mild, moderate, and severely mentally impaired. In a third case, mild or severe retardation and emotional disturbance were included as mental impairments. Such differences in coverage of mental impairment ultimately influence both the total number of mentally impaired persons found in any survey and the percentage of the total so reported.

In contrast to registration, surveys based on probability sampling can be used to calculate prevalence rates, but the rates of specific disability or disability types by subregion are subject to large sampling errors unless very large sample sizes are used. Again, checks of the completeness of sample selection can be made through comparisons with registration systems of impaired persons. For example, it is possible to compare impaired persons on a registration list with impaired persons identified in probability surveys (such as 1.5) and in one-time registration surveys (such as 5.3) to determine the relative completeness of each. Methodologies for that kind of evaluation can be developed to assess disability statistics collected in surveys with both unknown and known sampling probabilities.

If the findings are used cautiously and the impairment categories are comparable, prevalence rates are useful comparing age and sex trends among several surveys and censuses. For example, in Egypt, it is possible to build upon census findings through the use of national survey results, as shown below:


Censuses
National surveys
Egypt 1960 census
Egypt 1976 census
1 per-cent probability sample from the 1976 census
Health Interview Survey disability profile (1978-1979)
Medical examination and screening procedure of families selected into the Health Interview Survey (10 per cent of HIS families) (1979-1983)

Each data collection activity then builds upon the previous work.

In Jordan, data collection has been developed as follows:

Development of sampling frame	Disability Survey
1983 Agricultural Census: Household enumeration of the total urban and rural population (single question on disability)	
↓	
Special disability questionnaire (one-page questionnaire)	→ Proposed National Survey of Disability

In the above case, the agricultural census enumeration of all urban and rural households was used as a screening process for identifying disabled persons. Persons identified at that stage were briefly interviewed, using a special disability questionnaire. The purpose of data collected from the disability questionnaire was to provide sufficient information to stratify the disabled population on the basis of locality and type of disability in preparation for a proposed in-depth survey of disabled persons.

Classifications of impairment and disability

In each of the case study countries, classifications of impairment and disability have changed over time and from survey to survey and are not necessarily comparable. That issue was discussed extensively in chapter II.

Age groups

Published results on disability data from censuses are reasonably standardized in their presentation, but national survey results are not. Quite often, it is important to compare census and survey results, but comparisons are hampered by lack of comparability of age groups. For example, the following age groups are used by censuses and surveys in the tables shown in annex IV:

Types of age groups used in censuses and surveys

Total population, with no age breakdowns	under 15 15-64 65+	under 15 15-24 25-34 35-44 45-54 55-64 65+	under 1 1-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70+	under 5 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75+

Sex differences

Age group differences are further complicated when sex differences are considered. Variations in presentations by age and sex include:

(a) Total population, no age or sex breakdowns;

(b) Total population by sex;

(c) Total population by age;

(d) Total population by age and sex.

Standardization of the age and sex breakdowns used in published tabulations is thus important. Part of the difficulty in comparing census and survey results with respect to age and sex differences in disability is due to survey limitations in the disaggregation of data when the number of disabled persons in a sample is small (1.15, p. 2). For that reason, it would be useful to develop standardized table outlines for both data that can be extensively disaggregated, based on large sample sizes, and data that cannot be disaggregated, owing to small sample sizes.

Variations in cross-tabulations

When published tabulations use three or four basic variables, such as age, sex, rural/urban residence and type of disability, the difficulties of comparability and standardization in presentation increase. In some cases, age and sex breakdowns are presented for the total of impaired persons only (for example, table IV.30). In other cases, age and sex breakdowns are given for each type of impairment (for example, tables IV.4 through IV.9). Rural/urban differences may be presented by sex but not by age (tables IV.3 and IV.36). Or again, impairments are given by type of impairment and sex but not by age or rural/urban residence (tables IV.22 to IV.25). In each of those cases general guidelines on disability tabulations could contribute to a more uniform presentation. Given the differences in methods among the case study countries and the lack of any common guidelines, it is not surprising to find such a degree of incomparability in the published tabulations. In some respects, the degree of comparability which can be obtained through analysis is remarkable.

Age and sex cross-classified with other socio-economic variables

Similar problems of comparability arise when socio-economic characteristics of impaired persons are compared. For example, some tables on educational attainment are presented without reference to age and others are presented showing educational attainment for those over 6 years of age or those over 10 years of age. In some of the surveys, sex differences in educational attainment are not published. Similarly, different age cut-off points are used in the tabulations of economic activity. In one country, tables were published for the total population, with no age breakdowns provided. Another country published occupational data for populations over 10 years of age and another for those 15 years of age and over.

Other socio-economic characteristics

Educational attainment

There are special problems encountered when measuring the educational attainment of disabled persons. First, as noted in chapter I, special stipulations are sometimes placed upon the definitions of educational attainment of impaired persons. In one survey, blind persons who could read braille but who never attended school were considered illiterate even though persons with sight who never attended school but who could read were considered literate. Other surveys asked only about regular school and did not recognize tutoring or attendance at special educational facilities. Likewise, institutionalized persons who received educational services within the institution may or may not have been considered at all. However, some surveys asked both about educational attainment and about special educational services received by disabled persons (for example, in Jordan in 1978 (4.7) and in Lebanon in 1981 (5.12)).

Occupation and economic activity

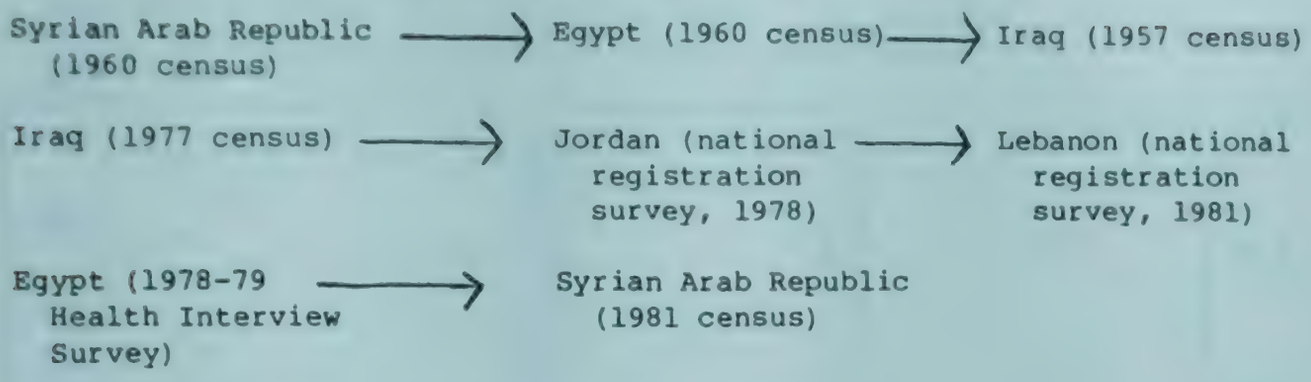
Problems with comparability occurred when one census presented statistics on occupations of the economically active population and another census on occupations of all impaired persons (see tables IV.44 to IV.46). There were also problems with comparability when impaired persons were cross-classified by type of impairment participation in economic activity without regard to age. The age structure of populations of blind persons, for example, is quite different from the age structure of populations that have lost sight in one eye, and it is possible that many of the differences in their economic activity rates or educational attainment may be age-related rather than disability-related.

Comparisons of census and survey results

Calculations of changes over time within countries are possible if done cautiously. For example:

Syrian Arab Republic	Iraq	Lebanon
1960 census	1947 census	1970 household survey
↓	↓	↓
1970 census	1957 census	1981 national registration survey
↓	↓	
1981 census	1977 census	

Census or survey results may also be compared cross-nationally:


Syrian Arab Republic (1960 census)
Egypt (1960 census)
Iraq (1957 census)
Iraq (1977 census)
Jordan (national registration survey, 1978)
Lebanon (national registration survey, 1981)
Egypt (1978-79 Health Interview Survey)
Syrian Arab Republic (1981 census)

Care must be taken, however, to determine the extent to which the data are comparable. Chapters I and II give examples of definitional differences and other methodological problems which might reduce the comparability of the findings.

Examples of data compilation and analysis

Fifty-two tables were prepared for the present report to illustrate the data available for the analysis of disability in the case study countries. They are presented in annex IV. They are not an exhaustive presentation of data from the sources used. Many other tables could have been prepared, and it is not possible for the purpose of the present report to discuss all the findings that might be derived from existing published tables. Rather, opportunities for analysis are summarized and some features of the data highlighted.

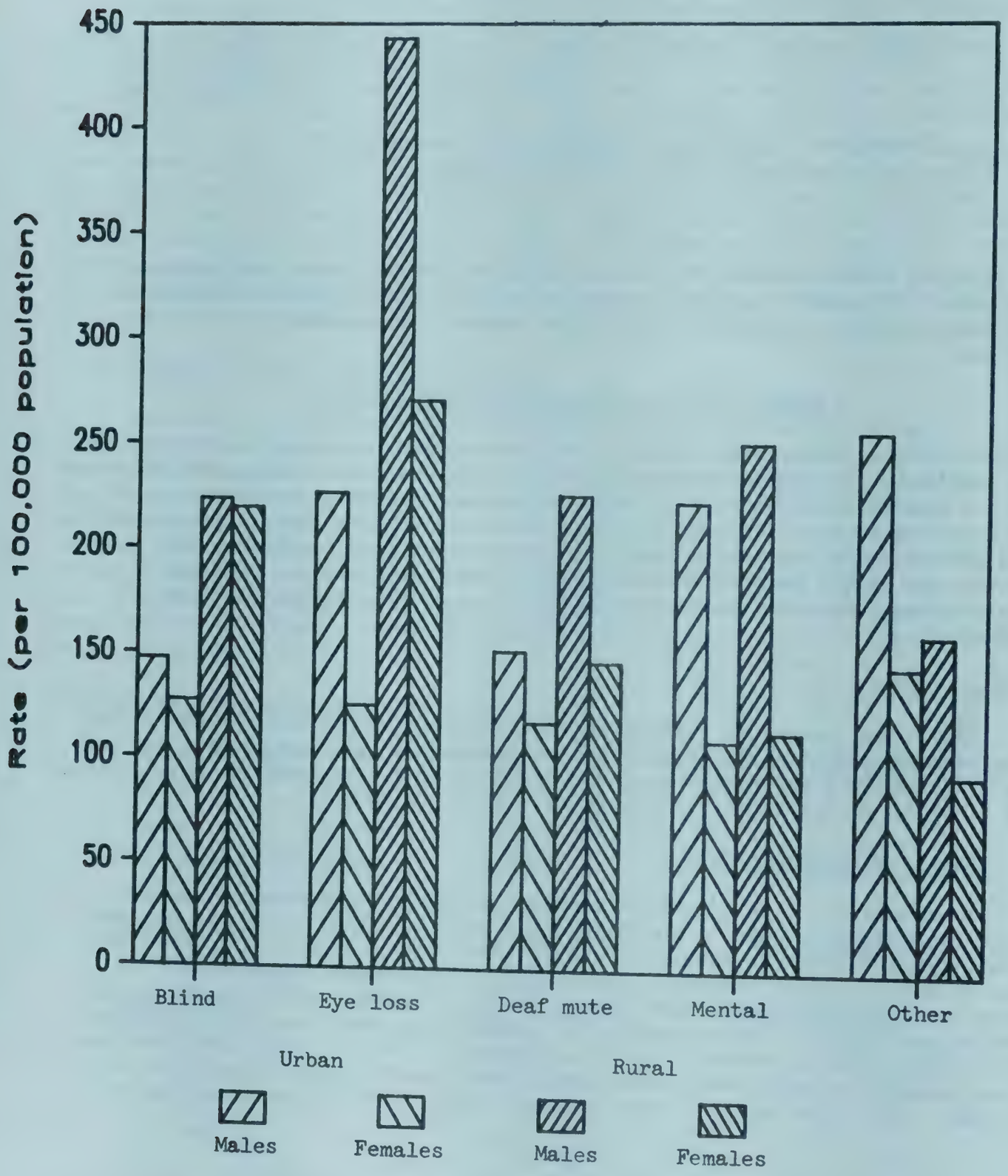
Prevalence rates

Prevalence rates, or numbers of impaired persons per 100,000 population, are presented according to rural/urban residence and sex, and by age, sex and type of disability for numerous censuses and surveys (for example, see tables IV.2 to IV.9, IV.23, IV.25, IV.26, IV.29, IV.30, IV.35 to 41).

Rural/urban differences

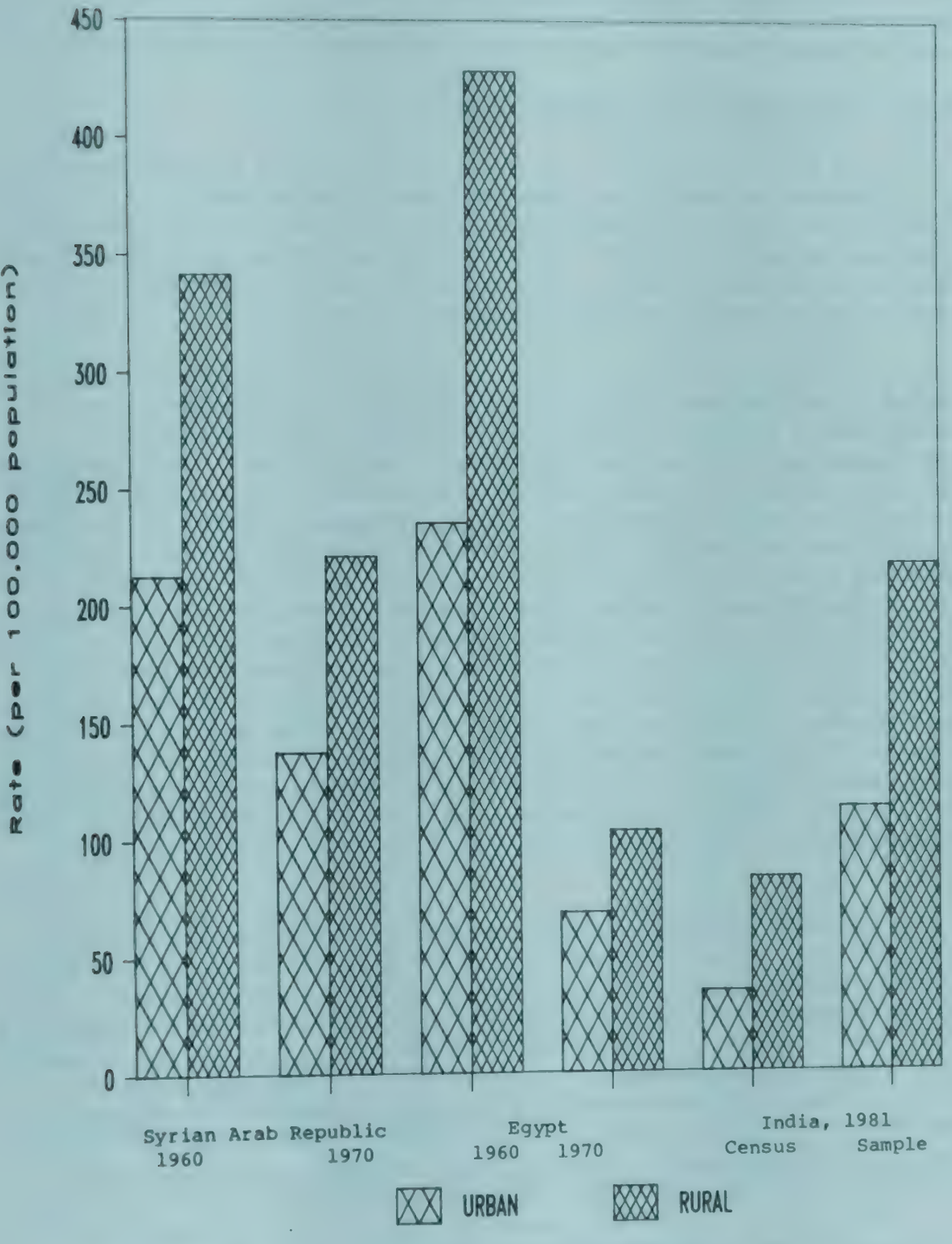
An example of rural/urban differences is shown in figure XII for the Syrian Arab Republic, 1970. For blindness, loss of sight in one eye and deaf mutism, rural prevalence rates are higher than urban. Figure XIII shows the rates of blindness per 100,000 population by rural/urban residence for the Syrian Arab Republic, Egypt and India. India was added to the comparison in order to see whether trends found in the case study countries are consistent with findings from a country in another region. For all three countries used in the example and with both census and survey results, rural areas had more blindness than urban areas, though the magnitude of the differences was not

Figure XII. Selected disabities: rates by sex and urban/rural residence, Syrian Arab Republic, 1970



Source: Syrian Arab Republic, Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol.I. (Damascus, n.d.) (in Arabic and English). (See table IV.36 in annex IV below.)

Figure XIII. Blindness: rates by urban/rural residence, Syrian Arab Republic, Egypt, India



Sources: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English); Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English); India, National Sample Survey Organisation, Report on the Survey of Disabled Persons (New Delhi, Department of Statistics, 1983), tables 24.1, p. A 12. (See tables IV.2 and IV.35 in annex IV below.)

in the example and with both census and survey results, rural areas had more blindness than urban areas, though the magnitude of the differences was not always the same. The consistency with which rural/urban differences are reported leaves little doubt that impairment problems are more severe in rural areas, although rates in both areas are likely understated due to underenumeration of impairments in general.

Age and sex differences in prevalence rates

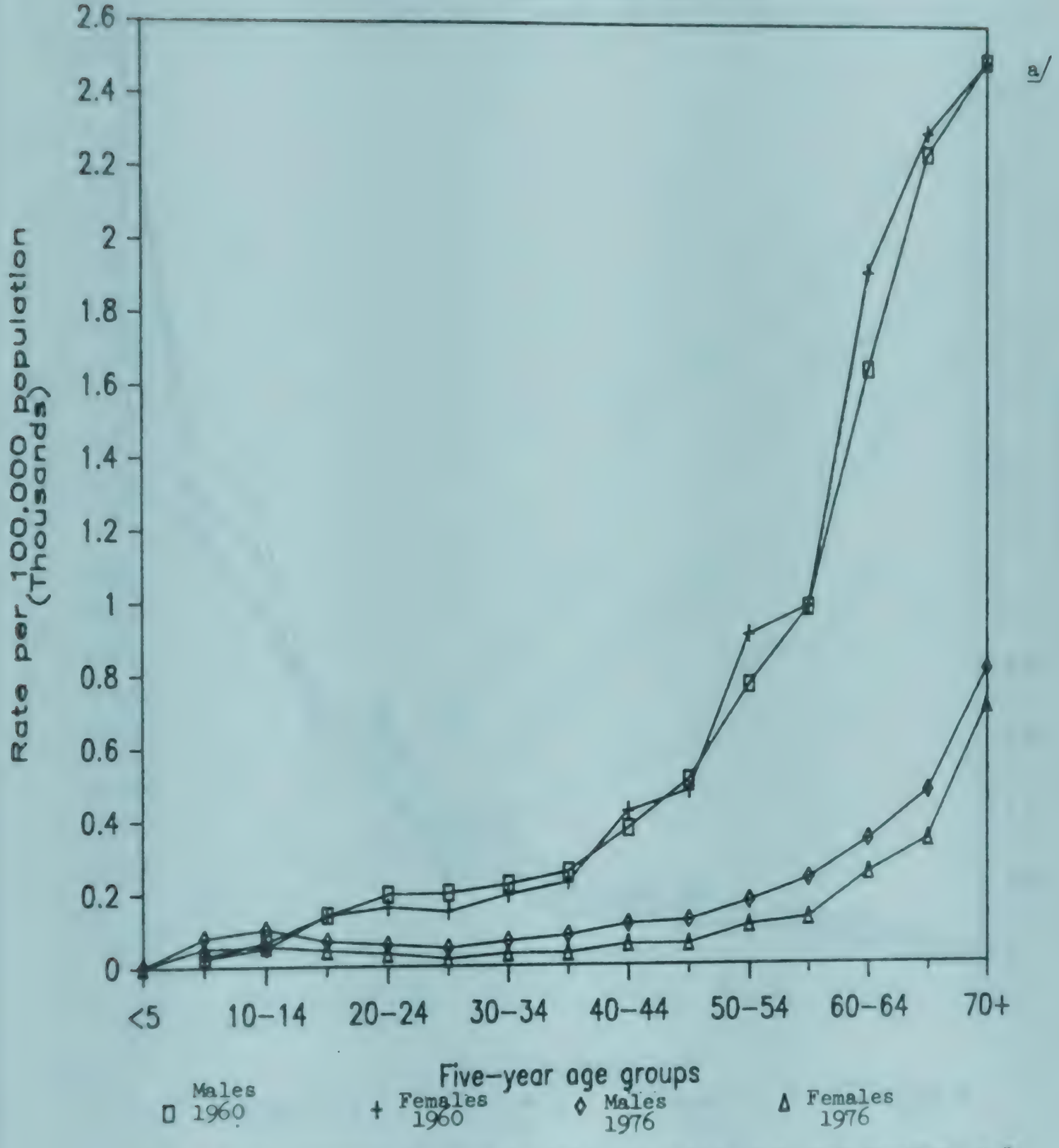
Figures XIV and XV show age and sex differences in the prevalence rates of blindness. Blindness is most often reported among the elderly. It is also the one impairment that generally shows lower rates for males than females at older ages. The one exception - Egypt in 1976 - shows higher male than female rates of blindness among the elderly, which possibly can be attributed to underenumeration of blind women in that particular census.

Changes in the prevalence rates of blindness for the Syrian Arab Republic and Egypt from the 1960s to 1970s are primarily due to decreased rates of blindness among elderly populations, probably attributable to improved public health and preventive health care in addition to increased access to medical treatment for infectious eye diseases. There is an unusual rate change in Egypt in 1976 (figure XIV), where prevalence rates of blindness are higher for children, especially aged 10-14 but also aged 15-19. The rates of blindness are not again as high as those reported for 10-14 year old children until the age of 40-44 years. The reasons for the higher rates among children are not known and call for further investigation of both methodological and substantive factors which might be influencing the findings, such as distortion of the rates because of underenumeration of blind persons, or epidemics of rubella or some other disease which are reflected in the increased rates of blindness among children, perhaps several years after the epidemic occurred. Age-specific analysis of blindness by geographical location might also help to pinpoint whether the high number of reported blind children is concentrated in one general area or dispersed throughout the country.

Figures XVI and XVII display age and sex-specific prevalence rates for loss of sight in one eye. The prevalence rates of loss of sight in one eye exhibit distinctly different age and sex patterns than do the rates of blindness. In the case of loss of sight in one eye, male prevalence rates are much higher than female rates. In addition, whereas the rates of blindness increase rapidly after age 50, rates of loss of sight in one eye increase rapidly after age 10 and continue to increase substantially at every age thereafter. Increases by age in the rates are seen for both sexes in all four censuses of the Syrian Arab Republic and Egypt, with the rates for women lagging behind those of men in every age group. One exception is the Syrian Arab Republic in 1970, where prevalence rates for women aged 65 years and older decline below the rates found for 60 to 64- year old women. The prevalence rates of loss of sight in one eye for elderly Syrian women remain substantially below the rates for elderly men.

The rates of loss of sight in one eye for Egypt and the Syrian Arab Republic in 1960 are similar. For example, rates for males in 1960 were 588 per 100,000 in Egypt and 564 in the Syrian Arab Republic. In both cases,

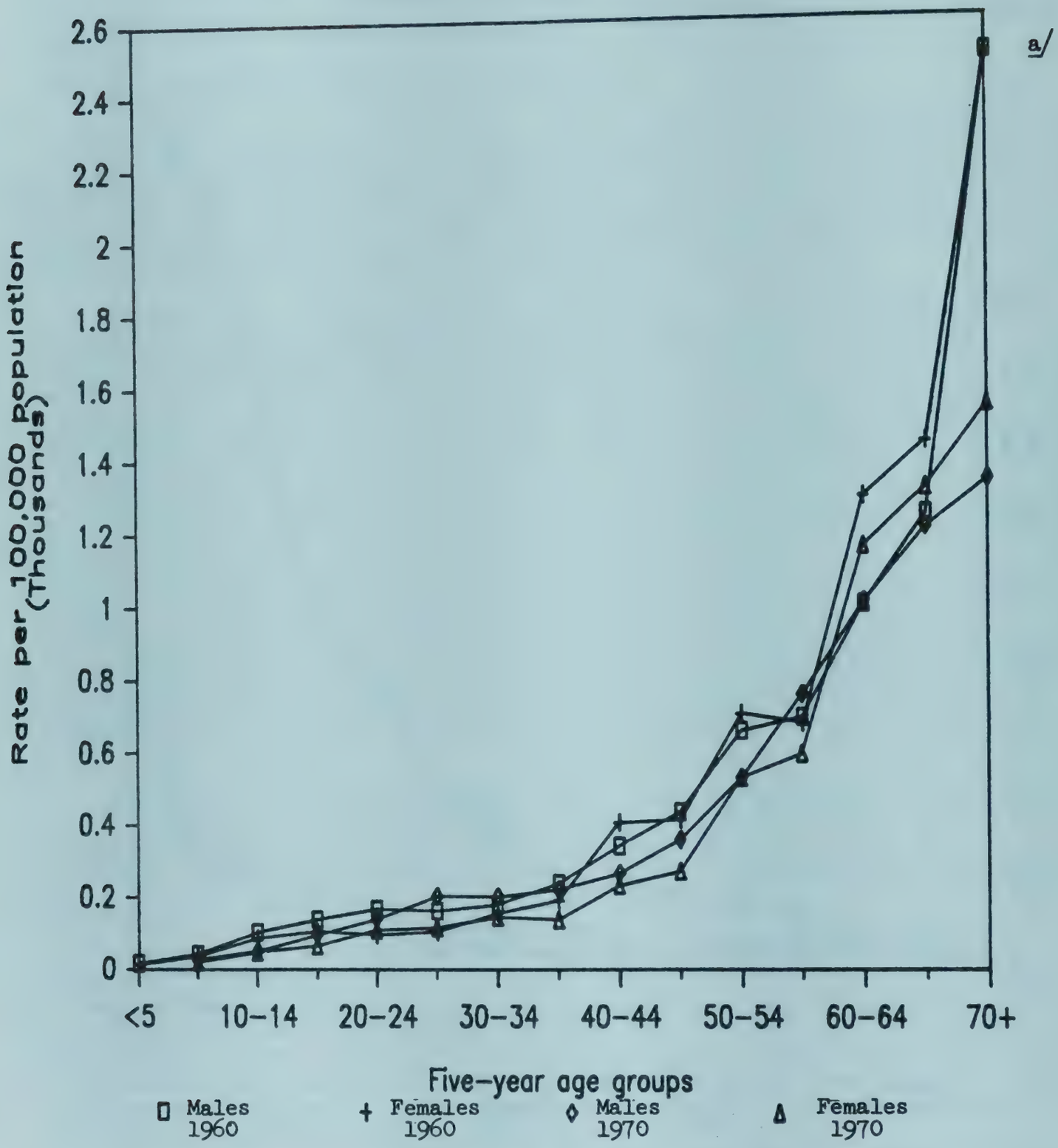
Figure XIV. Blindness: rates by age and sex, Egypt, 1960 and 1976



a/ Actual reported figures for 70+ are males, 4.6, and females, 4.7.

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See table IV.4 in annex IV below.)

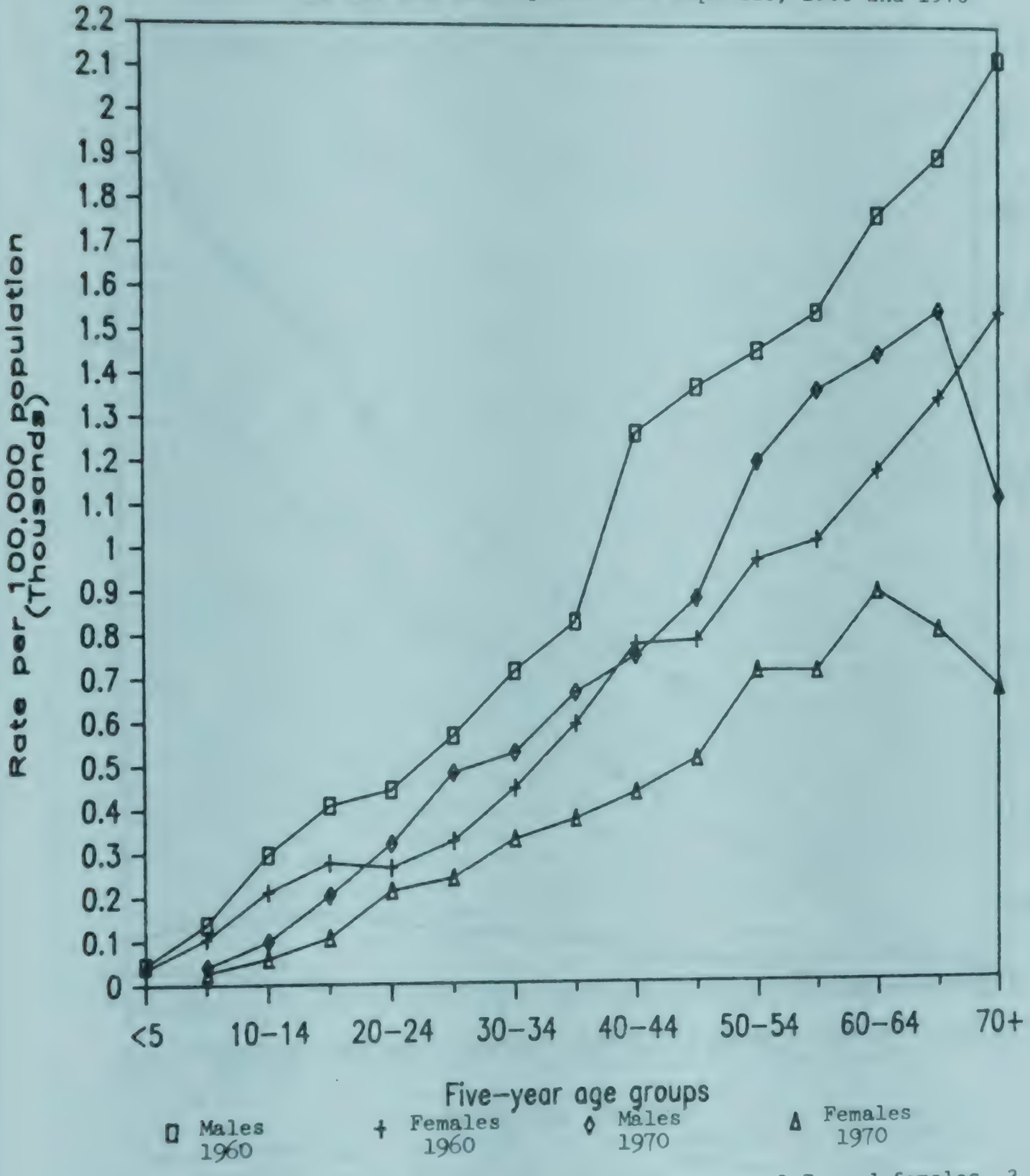
Figure XV. Blindness: rates by age and sex, Syrian Arab Republic, 1960 and 1970



a/ Actual reported figures for 70+ are males, 2.7, and females, 3.9.

Sources: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English). (See table IV.37 in annex IV below.)

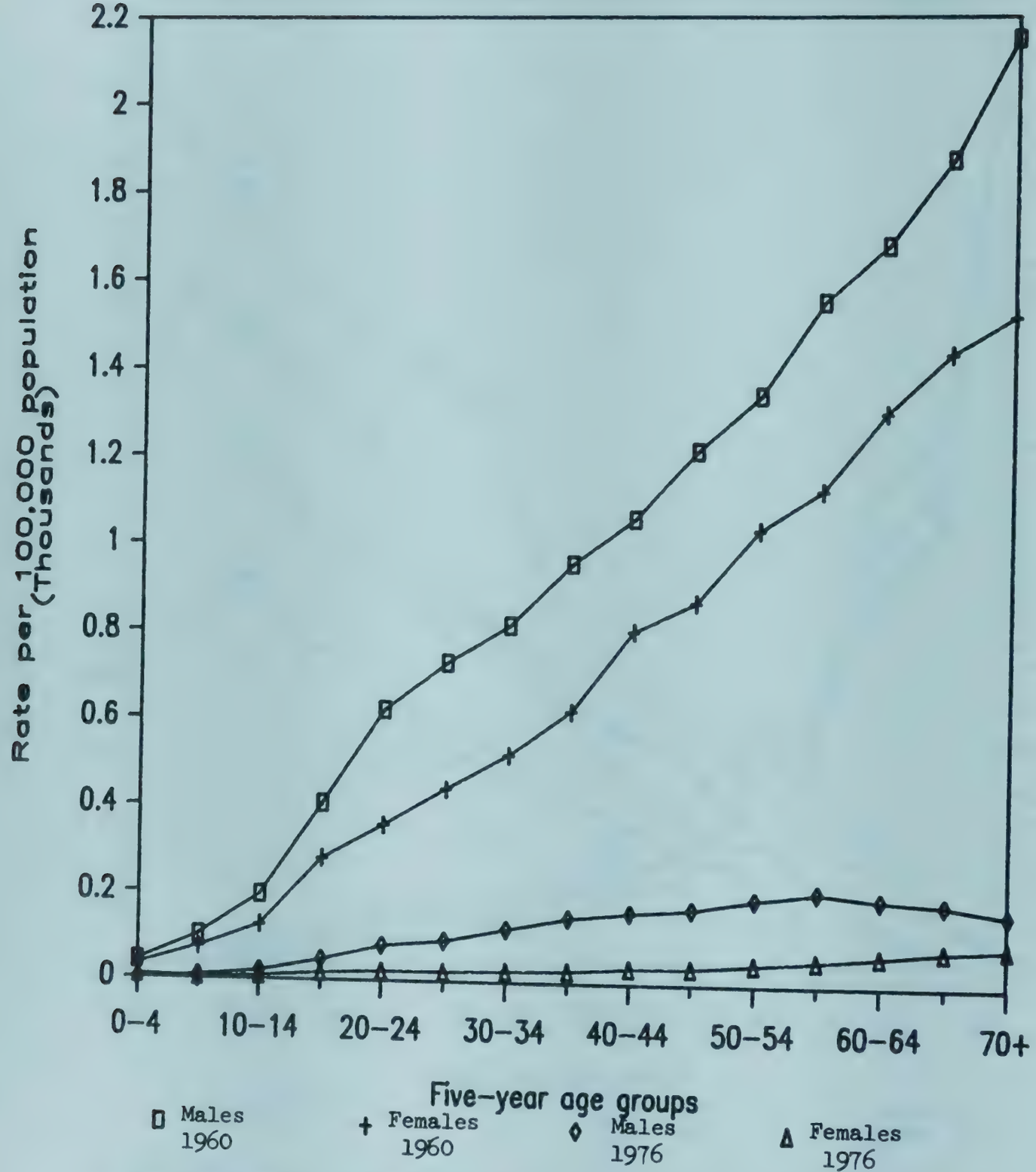
Figure XVI. Loss of sight in an eye: rates by age and sex, Syrian Arab Republic, 1960 and 1970



a/ Actual reported figures for 70+ are males, 2.7, and females, 3.9.

Sources: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d. (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. 1. (Damascus, n.d.) (in Arabic and English). (See table IV.38 in annex IV below.)

Figure XVII. Loss of sight in an eye: rates by age and sex, Egypt, 1960 and 1976



Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See table IV.5 in annex IV below.)

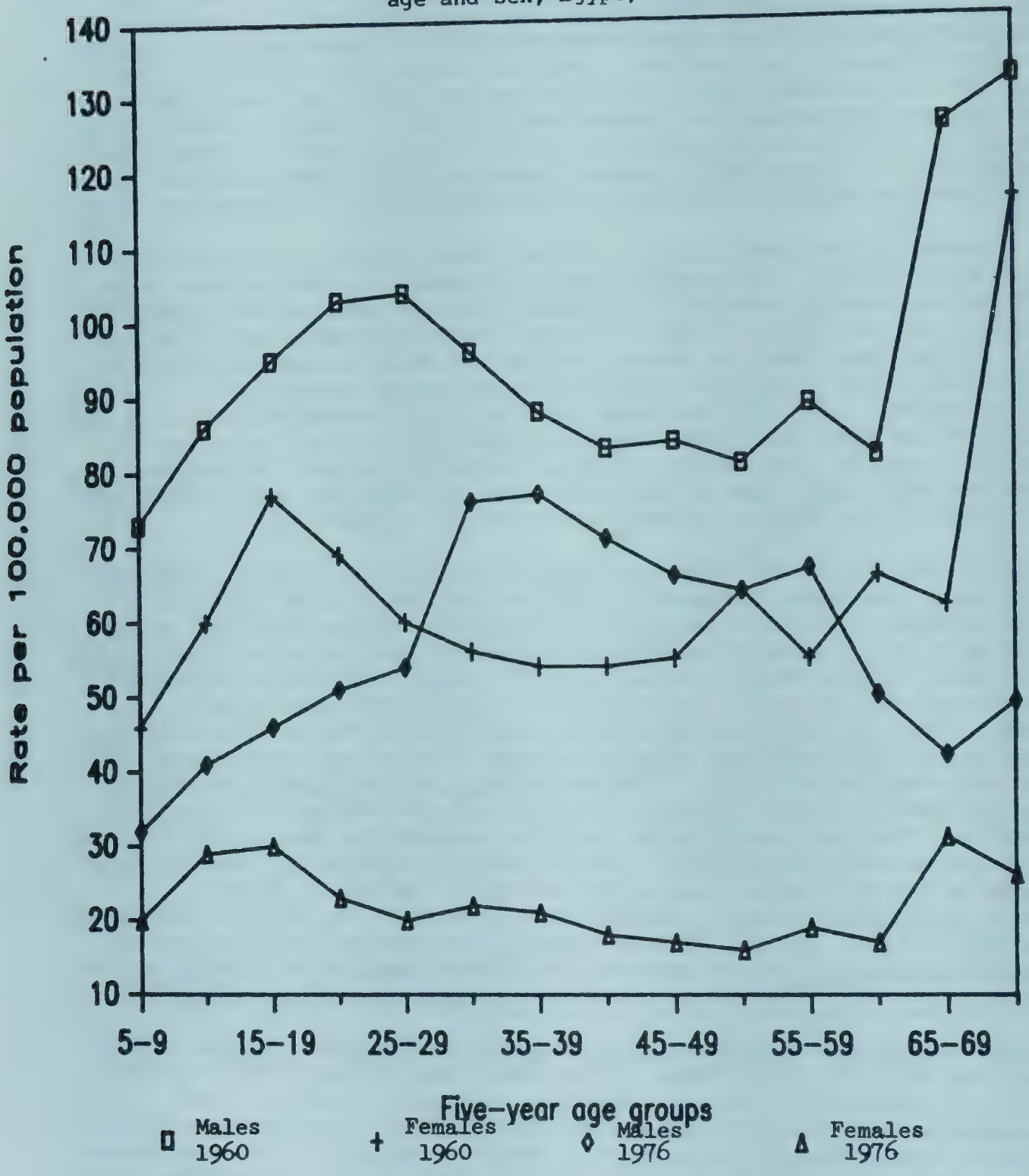
rates of loss of sight in one eye increased from the low 100s per 100,000 in the 5-9 age group to over 2,000 per 100,000 in the 70 years old and over age group. Overall rates for females were 428 in Egypt and 386 in the Syrian Arab Republic. Again, rates increased rapidly with age (tables IV.5 and IV.38). Prevalence rates of loss of sight in one eye decreased both in Egypt and the Syrian Arab Republic in the 1970s. The reduction in rates in Egypt appears too marked and most likely reflects underenumeration of the problem. The reasons for consistently higher rates for men than women are most likely due to occupational differences and higher occupationally related accident rates among males. It is also possible that loss of sight in one eye among women is underreported. It is doubtful, however, that sex differences reported in the two censuses are solely attributable to underenumeration of female eye loss.

Examples of the prevalence of deaf and mute persons are presented in figures XVIII and XIX. Although differing in magnitude, the patterns shown in most cases are roughly similar. Prevalence rates of deaf and mute persons increase in the age groups 15-29 and decline thereafter until age 50 or above. A departure from that general pattern is Egypt in 1976, as shown in figure XVIII, where prevalence rates in general appear to reflect underenumeration. The rate for males does not start decreasing until the age group 40-44 and does not substantially increase again at any later age. In general, however, the pattern of higher rates of deafness and muteness at younger and older ages than at the middle ages is found for both females and males, although the pattern is more pronounced in the male rates.

Explanations for the bimodal pattern of prevalence rates for deaf and mute persons might again be found in the cyclical patterns of exposure to rubella epidemics or some other form of infectious illness among the younger ages as well as increased problems with speech and hearing among elderly populations. Interestingly, the age-specific pattern of hearing impairments found in the Egyptian Health Interview Survey also shows that bimodal pattern. Figure XVIII shows the largest proportion of hearing disabled persons being found among the population under 25 years of age and over 64 years, excluding males in 1976. The consistency of the finding in various survey and census results suggests that there may be substantive reason for the pattern. Further investigation into the age-specific prevalence rates as well as the causes underlying the rates of hearing impaired persons with the HIS data on disabled persons may prove helpful in searching for the explanation. A similar investigation could be carried out with the 1981 data for Lebanon (5.11). In that case prevalence rates cannot be calculated but age-specific distributions of hearing- and speech-impaired persons by age and sex might be further examined by cause of hearing and speech impairment.

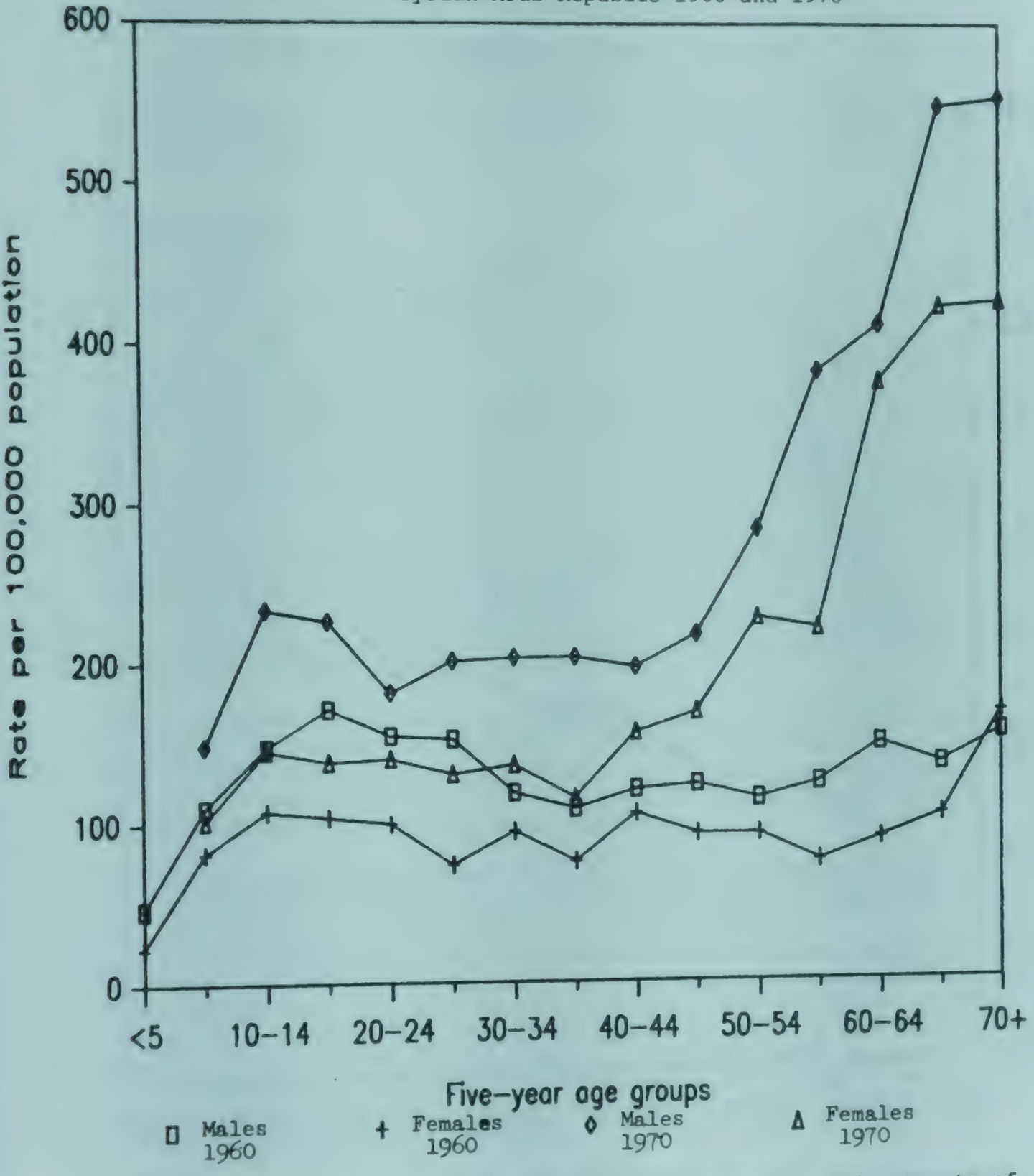
Age and sex-specific prevalence rates of the mentally impaired for the Syrian Arab Republic in 1970 show little distinction by age except for the markedly low reporting of mental impairment under the age of 15. Sex differences in the rates are remarkable. An example of age and sex-specific prevalence rates of mental impairment is shown in figure XX. Rates of mental impairment in the Syrian Arab Republic in 1970 for women are lower than rates for men at every age, and the pattern for men and women is remarkably different between the ages of 10 and 64. Sex differences in reports of mental impairment are smaller among the elderly - that is, those over 65 years of age. Young men aged 20-39 have higher reported prevalence rates of mental

Figure XVIII. Deaf and mute persons: rates by age and sex, Egypt, 1960 and 1976



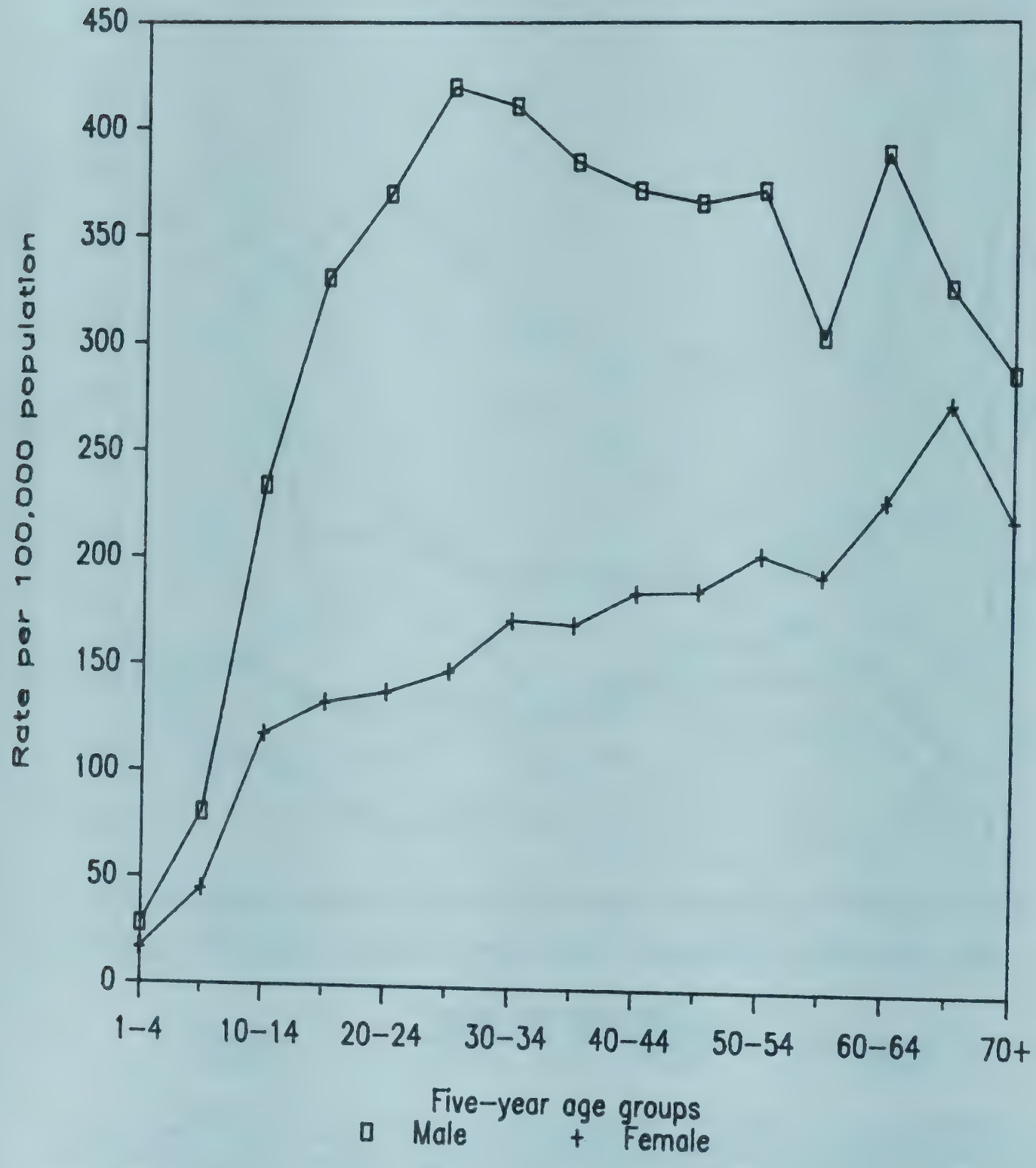
Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See table 6 in annex IV below.)

Figure XIX. Deaf and mute persons: rates by age and sex, Syrian Arab Republic 1960 and 1970



Sources: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English). (See table IV.39 in annex IV below.)

Figure XX. Mental impairment: rates by age and sex, Syrian Arab Republic, 1970



Source: Syrian Arab Republic, Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol 1. (Damascus, n.d.) (in Arabic and English). (See table IV.41 in annex IV below.

impairment than persons at any other age. Perhaps that is partly because young men are not as easily hidden from public view as are older men or women of all ages, and therefore are reported because their mental impairment is publicly acknowledged. Young men are seen at work, at school and in public markets where they must bargain, exchange money and calculate rates of exchange. Their behaviour is regularly publicly scrutinized. Mentally impaired women, in contrast, do not necessarily have to attend school or public markets in order to be socially accepted and their behaviour may be less visible to others. Perhaps careful probing in special surveys would increase the prevalence rates of mental impairments among women, using carefully phrased and discrete questions.[4/]

Educational attainment

All levels of educational attainment are represented among impaired persons reported in censuses in Egypt and the Syrian Arab Republic - that is, from illiterates to holders of doctoral degrees, as shown in tables IV.10 to IV.12 and IV.42 to IV.43. However, the overwhelming majority of impaired persons is illiterate, as shown in table 13. The highest rates of illiteracy among impaired populations are found for blind, deaf and mute and mentally impaired persons. Those without sight in one eye are also largely illiterate. Impaired persons who have lost an arm or leg are more likely to have somewhat higher educational attainment or at least be able to read and write than are other impaired persons. The 1976 Egyptian data show questionably low illiteracy rates when compared with 1960 findings. Even though improvements in educational opportunity would be expected over a 10-year period, they would not be expected to improve to that extent, especially when compared to the rates found for the Syrian Arab Republic. Selective identification of more highly educated impaired persons seems to have occurred in the 1976 Egyptian census.

Sex differences in educational opportunity among impaired persons shown in table 13 are consistent with national trends for both Egypt and the Syrian Arab Republic among the impaired population. Although impairment limits opportunities for schooling among all impaired persons, it limits educational opportunity more significantly for women than men.

Another perspective on educational opportunity is given in table IV.27, where the opportunities for special educational services are reported from the 1978 National Survey of the Handicapped in Jordan. The Survey found that between 0 and 13.8 per cent of impaired persons received educational or educational and medical services, depending upon the type of impairment. Those who received the least special education were deaf and blind individuals (0 per cent) followed by people who had an amputated leg (3.3 per cent) and completely paralysed persons (2.5 per cent). Mildly mentally retarded persons, the emotionally disturbed, those who had severed both an arm and a leg, and deaf persons who had no speech received the highest proportions of special educational services, ranging from 8.4 to 13.8 per cent.

In addition to data about special educational services received, the educational attainment of impaired persons was also presented in the Jordanian findings, but not by age and sex. Thus, comparisons with Egypt and the Syrian Arab Republic are difficult. Rates of illiteracy among impaired persons of

Table 13. Illiterate impaired persons aged 10 and over, by type of impairment and sex; Syrian Arab Republic, 1960 and 1970, and Egypt, 1960 and 1976
(Percentage)

Type of impairment	Syrian Arab Republic				Egypt			
	1960		1970		1960		1976	
	M	F	M	F	M	F	M	F
Sensory								
Blind	95	98	90	99	96	99	44	76
Loss of sight in an eye	71	97	70	97	74	96	52	73
Deaf and mute	96	97	87	98	97	98	48	57
Physical								
Arm(s) amputated	63	94	58	90	68	93	47	58
Leg(s) amputated	64	72	64	92	66	94	48	81
Mental								
Mentally retarded	---	---	---	---	---	---	80	89
Mentally impaired	---	---	82	96	---	---	---	---
Total in national population	49	84	35	74			42	71

Sources: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English); Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See tables IV.10 to IV.12 and IV.42 to IV.43 in annex IV below.)

all ages in Jordan ranged from a high of 97.5 per cent among deaf and blind persons to a low of 42.6 among those whose legs were amputated (4.7, p. 20). The findings for Jordan include children under 10 years of age who, given their expected developmental levels, might not be expected to be literate, thereby inflating the illiteracy rates of impaired persons in that country when compared to the Syrian Arab Republic or Egypt, whose illiteracy rates excluded children under 10 years of age.

Even with those difficulties in the comparative analysis, the data do generally reveal the handicapping aspects of impairment with respect to educational opportunity. They also show that impaired persons differ in their loss of educational opportunity by type of impairment. Further clarification of the differences might be achieved if age and sex classifications were routinely used. For example, high rates of illiteracy among certain populations of impaired persons might be strongly correlated with their age distributions. Older persons are more likely to be illiterate than are younger persons, because educational opportunity for all persons was more limited 25 years ago than it is today. A great deal of educational reform has occurred since the 1950s in that region of the world. Impaired populations that have older average ages (for example, blind populations) are much less likely to have a higher educational attainment, primarily because of their age rather than their particular type of impairment. Such basic demographic differences in the populations of impaired persons need to be taken into consideration in analysis, both when comparing educational attainment differences between impaired persons and the total population and among different types of impaired populations.

Economic activity

As might be expected, given their educational attainment, larger proportions of impaired than of non-impaired persons in the censuses of Egypt and the Syrian Arab Republic are reported to be without an occupation and not economically active. Differences in the proportions who report being without an occupation are found both by type of impairment and sex.

Blind persons are largely reported as having no occupation for both sexes, although more blind men than women have occupations. Tables IV.13 to IV.15 show the occupations of impaired Egyptians. They indicate that blind Egyptian men and women who are reported as having an occupation in 1960 are primarily found in the categories of service workers and agriculture, with a few in sales work and professional or technical work. Among those who are reported as either having lost sight in one eye or as deaf and mute and with an occupation, most are in agricultural occupations. Similar findings are found for the impaired populations of the Syrian Arab Republic in 1960 (see table IV.44).

It would be useful to re-examine the occupations of impaired persons, using more detailed occupational classifications than are currently published. The status and type of work that impaired persons actually do could be more readily distinguished if detailed occupational classifications were presented. It would also be useful to have occupation by educational attainment for impaired persons by sex and age. Such tabulations allow consideration to be given to the rehabilitation needs of impaired persons.

Problems associated with the measurement of women's economic activities through the use of national censuses and national household surveys are reviewed in the United Nations publications on statistics and indicators on the situation of women (1.8, 1.9). Problems associated with the measurement of women's economic activities are compounded when women are disabled. Table 14 shows that for most impairments, 90 per cent of the impaired women are reported to have no occupation. The major exception is for loss of sight in one eye. The few impaired women who are reported with occupations in the Syrian Arab Republic are reported either as agricultural workers or unclassified labourers (table IV.44). In Egypt in 1960 the principal occupations of economically active impaired women were in agriculture or services, or they were unclassified workers (table IV.13). In 1976, impaired women continued to be found in agricultural work and in services. They were also found more often in clerical positions and as labourers and in the professional and technical category (table IV.15). Since 1976 Egyptian data on disabled persons were based upon a more highly educated population of impaired persons, it is not surprising that greater proportions of them were economically active.

Table 15 provides data on the reasons for economic inactivity. In 1960, 33 per cent of deaf and mute men, 24 per cent of blind men and 8 per cent of men who reported the loss of sight in one eye were neither working nor seeking work. Over half of blind males, 11 per cent of deaf and mute males and 5 per cent of men who had lost an eye were reported as "unable to work".

Using additional categories for the reasons for persons being economically inactive in 1976, the age differences in impaired populations become clearer. Almost 20 per cent of all blind men were considered "aged/retired" and therefore unable to work, whereas 4 per cent of the men who had lost sight in one eye were reported in that category. In addition to age, student status was also an important explanation for economic inactivity. It is also to a certain extent age-related. Twenty-eight per cent of blind males who were age 6 and older, 10 per cent of deaf and mute males, and 9 per cent of those who had lost an eye were reported as students. Even though there are known problems with underenumeration of impaired persons in the 1976 census in Egypt, the results are presented primarily to show how explanations for economic inactivity in censuses can help to distinguish handicapped persons or those unable to work from impaired persons who are studying or who are too old to be in the labour force. Age and sex classification of that variable would also be very helpful.

Questions asked about occupation in surveys are also enlightening. Although survey data on the economic activities of impaired persons are not presented in the present report, some are available. For example, questions were asked in the Egyptian Health Interview Survey concerning the effect of a disability or impairment on work and whether disabled persons were able to work with or without rehabilitation. Disability and injury compensation was also asked about. In general, however, the basic concept of work and the economic activity of impaired persons needs to be examined in more depth. In cases where accident, injury or disease has affected an adult, questions should be asked about previous and current occupation, with or without rehabilitation. The common role of many impaired or disabled persons as unpaid family workers rather than as wage earners also needs to be carefully

Table 14. Impaired persons who report having no occupation, by type of impairment and sex; Syrian Arab Republic, 1960 and 1970, and Egypt, 1960 and 1976
(Percentage)

Type of impairment	Syrian Arab Republic				Egypt			
	1960 a/		1970 b/		1960 a/		1976 b/	
	M	F	M	F	M	F	M	F
Sensory								
Blind	88	99	78	99	75	98	69	98
Loss of sight in an eye	81	24	94	12	91	10	94	14
Deaf and mute	47	93	28	92	30	93	18	76
Physical								
Arm(s) amputated	46	96	33	92	40	96	16	70
Leg(s) amputated	64	97	53	94	49	96	33	90
Mental								
Mental retardation	---	---	---	---	---	---	100	100
Mental impairment	---	---	78	97	---	---	---	---

a/ Aged 15 years and older.
b/ Aged 10 years and older.
Sources: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), and Office of the Prime Minister, Central Office of Statistics, Population Census, 1970: Syrian Arab Republic, vol. I. (Damascus, n.d.) (in Arabic and English); Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See tables IV.13 to IV.15 and IV.47 in annex IV below.)

considered. In none of the surveys or censuses examined was detailed consideration given to impaired persons working as unpaid family workers. Probing on that issue is undoubtedly required. Many of the same measurement problems that plague the study of women's economic activities also plague the measurement of impaired persons' work. For example, work done by impaired persons is likely to be viewed as "domestic work" and not counted as economic activity when conducted in or near the home environment. Given the importance of community involvement to the rehabilitation of impaired persons, knowledge of the issue is imperative in order to understand the ways that the disabled are currently integrated into the community occupational structure, if at all.

The definitions of economically active and inactive must consider in more detail the likely activities of impaired persons in the home, on farms or in unusual urban settings. Such activities as religious chanting, singing or dancing in the streets or at community events for money, kerosene carrying, animal herding and tobacco stringing are economic and should be more carefully assessed. In addition, the domestic activities of impaired persons who are functioning successfully at home ought to be acknowledged since those activities would have to be carried out by someone else if the impaired person did not do them - for example, cooking and cleaning. Daily homemaking tasks,

Table 15. Impaired males economically inactive, by reason for being economically inactive and type of impairment; Egypt, 1960 and 1976
(Percentage)

Reason economically inactive	Type of impairment					
	Sensory			Physical		
				Amputees		
	Blind	Loss of sight in an eye	Deaf and mute	Arm(s)	Leg(s)	Mental retardation
1960						
Unable to work	51.5	5.3	10.9	23.4	29.5	---
Not seeking work	23.9	8.3	32.9	20.4	23.0	---
Total	75.4	13.6	43.8	43.8	52.5	---
1976						
Unable to work	26.2	4.0	15.4	10.8	23.9	98.4
Aged/retired	19.6	3.7	6.0	3.0	5.2	2.9
Student	27.6	8.7	9.5	4.2	7.3	2.0
Total	73.4	16.4	30.9	18.0	36.4	98.4

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See tables IV.16 to IV.17 in annex IV below.)

although not currently acknowledged as economic activity, are areas where impaired persons may be contributing to the economic support of a family by freeing family members to engage in other work. There is a great deal to be learned about the work of impaired persons and it should be taken into account while instituting rehabilitation programmes for them.

Geographical location

Several examples of the way that data about geographical location of impaired persons may be used are given in tables IV.19 and IV.50 to 52. Table IV.19 shows the percentage distribution of impaired persons, by governorate and region, for Egypt in 1960 and 1976. It is then compared to the percentage distribution of the total population of Egypt by governorate and region. Table 16 is obtained by subtracting the percentage of total population in each region from the percentage of impaired persons, by type of impairment in each region.

The 1960 findings indicate higher percentages of impaired persons residing in Upper Egypt than expected, given the distribution of the total Egyptian population by region. Urban Egypt - that is, Cairo, Alexandria, Port Said, and Suez - have lower proportions of impaired persons than expected, given the proportions of the total population found in those urban centres. In 1976 the pattern in the proportions of impaired persons residing in any region is quite different from the 1960 pattern. One possible explanation is the movement of impaired persons to urban centres, both for work opportunities and for medical and health assistance or because they are in families that have joined the strong rural to urban movement in Egypt. Another possible

explanation is that underreporting of impaired persons was more severe in Upper and Lower Egypt than it was in urban centres. Again, the Health Interview Survey might be helpful in determining the extent to which 1976 census results underenumerate impaired persons, either in selective regions or generally. Even though that cannot be resolved with the data at hand, presentation of the results provides ideas for further methodological and substantive consideration of the issue.

Another way to explore whether the changes from 1960 to 1976 are from rural-to-urban migration of impaired persons or from selective reporting is to look at the results for the Syrian Arab Republic, which has also experienced significant shifts in its population from rural to urban settings since 1960. Yet when the percentage distribution of impaired persons residing by governorate for each type of impairment is observed (tables IV.50 and IV.51 for 1960 and 1970), the proportions of impaired persons residing in the urban settings of Damascus, Damascus City, Aleppo and Aleppo City do not change dramatically. For example, in 1960 44.4 per cent of the blind population was in one of those urban areas; in 1976, 36.3 per cent were. Thirty per cent of the persons who had lost an eye in 1960 and 30 per cent of those in 1970 were found in one of the above-mentioned urban governorates. In 1970, the same urban areas accounted for 44 per cent of the total Syrian population. That percentage distribution of impaired persons suggests that the majority of impaired persons are not more urban than the population as a whole, which is different from the 1976 pattern found in Egypt.

Another way to look at distributional differences in geographical location is through the study of location-specific prevalence rates of impairment per 100,000 population. For example, in table IV.52 prevalence rates of impairment vary considerably from region to region in the Syrian Arab Republic in 1970. Blindness, for example, has a prevalence rate of 106 in Damascus City and 285 in Quneitra. Loss of sight in one eye is as low as 115 per 100,000 in Damascus City and as high as 806 in al-Hasakeh. Arm amputation is reported more often in Dar'a, al-Hasakeh and Tartous (49, 44 and 45 per 100,000, respectively) than in Hama, Damascus City or Damascus (20, 22 and 23, respectively). The overall disability prevalence rates recorded in the 1970 census indicated a range from 725 per 100,000 in Damascus City to 1,652 in Hasakeh and 1,367 in Dar'a. Sex and rural/urban differences by governorate for impairment can also be calculated from existing published data but are not given in the present report.

In addition to cross-governorate comparisons, in-depth analyses of particular areas are possible. An interesting example has been prepared by al-Ayyat (2.1), using 1960 and 1976 census data for Cairo and surroundings.

In sum, geographical location is an important variable for distinguishing variations in prevalence rates and examining the geographical distribution of impaired persons. Further exploration of differences by geographical areas may also use rural/urban, regional and sub-regional and age and sex differences in population distributions in order to determine the exent to which locational differences are demographically determined. The remaining differences in the regions could then be examined through the use of supplementary data, such as hospital and clinic statistics and local surveys, to determine the extent that they are influenced by socio-economic, health, and programme differences.

Table 16. Percentage point differences[a/] between the distribution of impaired persons, by type of impairment, and the distribution of the total population of Egypt, 1960 and 1976

Region	Type of impairment			
	Sensory			
	Blind	Loss of sight in an eye	Deaf and mute	Mentally retarded
1960				
Urban	- 9.6	- 9.8	- 5.3	---
Lower Egypt	- 4.1	- 4.5	+ 2.1	---
Upper Egypt	+13.8	+14.5	+ 3.8	---
Frontier	- 0.5	- 0.7	- 0.8	---
1976				
Urban	- 7.5	+ 2.4	+23.1	+15.6
Lower Egypt	+ 0.7	- 4.2	-15.0	- 0.8
Upper Egypt	+ 6.7	+ 1.9	- 7.7	-15.8
Frontier	0.0	- 0.1	- 0.2	+ 1.0

a/ Percentage of impaired (by type of impairment) less percentage of total population, in each area.

Sources: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), and Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No. 93-15111 (in Arabic and English). (See table IV.19 in annex IV below.)

Illustrative policy implications of the findings

The potential for the utilization of the data presented in annex IV for policy and planning is to a certain extent dependent upon the way the data are presented. When raw numbers from published tabulations are transformed into percentages, rates and ratios, and when rates or percentages are drawn into figures and graphs, attention is then drawn to patterns and trends that are potentially useful for planning purposes.

Age and sex-specific percentage distributions and prevalence rates of impairment exhibit reasonably consistent distributions and shapes when findings from various censuses are compared. Such general patterns suggest, for example, that social services for the blind should concentrate on the concerns of the elderly blind. In contrast, the targetting of services for persons who have lost sight in one eye might concentrate more resources on services for middle-aged populations of persons who are more likely to be economically active, especially men. Special surveys can be used to supplement national statistics from censuses and large-scale sureys in order to investigate ways to prevent eye injuries or infections and to prepare rehabilitation and training programmes that stress prevention. Such programmes should also provide services to persons who have lost sight in one eye which help them to maximize the use of the vision that they have. In addition, trends found in the rates of mental impairments suggest the need for

special efforts to screen pre-school populations for earlier recognition and identification of intellectual and other psychological impairments by parents and other family members.

Rural/urban differences in the rates of impairment suggest the need for special attention to the problems of rural persons who are impaired and their families. Rates by geographical locations are also highly variable and should be taken into account when programmes for disabled persons are designed and when resources and staff for programmes are allocated to specific areas.

With respect to socio-economic characteristics of impaired persons, findings about educational attainment, for example, have at least several major policy and programme implications. First, programmes designed for persons with specific types of impairment might be better tailored to the appropriate target group when the educational attainment of impaired persons is known. Illiterate persons who are impaired require oral or pictorial rather than written instructions about the care and use of a prosthesis or the proper use of a crutch. If written instructions or educational pamphlets are prepared, the audience may need to be enlarged to include instructions to family members or to community health workers about the use of such devices and about how to instruct impaired persons in their use.

Secondly, carefully conducted surveys or censuses that collect data on age and sex-specific educational attainment or school attendance rates by type of impairment can be utilized to assess the current status of impaired persons so that educational programme requirements for the future may be planned, based upon knowledge of the existing situation. If practically the total population of impaired persons is illiterate or has never attended school, whereas the larger total population of children is at least educated at the primary school level, then programmes might be tried which integrate impaired children into the regular public school system, at least during the early years of primary school, as opposed to concentrating large proportions of limited funds on the highly selective special educational systems or institutions that cater only to very few impaired children. If it is found that impaired children generally already do attend public school systems for at least the first semester or year or two (or that a plan to include them in early education is feasible), educational efforts should then be concentrated upon the preparation of short-term training sessions with follow-up in the classroom for teachers and community health workers on ways to include impaired children in early education programmes. In addition, further research on the current role of public schools in the identification of impaired children and their treatment is needed for programme planning.

Special research projects designed to integrate survey research results with available programme data on services received by impaired persons (such as educational, medical, social and financial) are also needed. The proportions of children served by special educational programmes and private institutions, for example, should be compared with the numbers and proportions reported in censuses of impaired children who have attended regular school. Programme estimates of numbers of children served by special educational programmes, distinguishing private and public schools, should be compared with survey estimates of the proportion of children in need of services. Survey

estimates of adult illiteracy among the impaired population should be compared with numbers of impaired persons who receive educational services in adult literacy programmes as reported in programme statistics.

In addition to education, the findings concerning economic activity and occupation also have several broad implications for policy and planning. First, knowledge of the current economic activity and occupation of impaired persons helps planners to tailor special programmes and rehabilitation services to the immediate occupational requirements of already economically active impaired persons. If, for example, large proportions of impaired persons are involved in agricultural work, then programmes tailored to the occupational needs of impaired workers in agriculture are required. Special surveys of the types of work and problems encountered by impaired persons while working could also be very useful for planning rehabilitation services. Secondly, findings concerning the occupation of impaired persons provide guidelines to planners on the exent to which impaired persons are handicapped by unemployment or underemployment or by their inability to work because of severe problems with disabilities that have not been addressed through rehabilitation and education.

IV. CONCLUSIONS

Need for increased attention to the analysis of existing data

There is often a tendency in survey work, as a project nears completion, to become preoccupied with shortcomings of the data collected and to stress the need for new data collection. Questions that were not asked in the field become more important than the questions that were asked. On the whole, that reaction provides a useful encouragement to improvement in future work but may lead to overlooking opportunities for more detailed use of existing data. Given that it takes, on the average, approximately from three to six years to plan, conduct and process any kind of national survey, existing data bases ought to be carefully examined for their value and timeliness prior to allocating scarce funds and technical resources to new projects that will not yield results for at least several more years. An effective balance in the allocation of funds and resources among data collection, processing, dissemination and analysis is needed to ensure optimal use of survey research.

Data on a number of important variables were collected through population census activities and national surveys of disabled persons that were not compiled and published but which could be in the five countries studied in the present report. Among the tables which could be compiled are: marital status of disabled persons, by age and sex; the number of heads-of-household who are disabled, by age, sex and rural/urban residence; proportions of disabled persons who reside in single-family households, joint-family households, or in institutional settings, by type of disability; family income status; type of dwelling within which disabled persons reside; family size; number of living children of disabled persons; disabled children currently attending school; and perceived cause of disability. The social context of the lives of disabled persons can be further examined using existing national data bases if special projects are prepared which recompile and analyse data available in census and national household survey files so that topics such as the ones mentioned above may be investigated. The selected survey instruments shown in annex III offer additional examples of variables that may be used during a secondary analysis of national data available for the study of disability.

Guidelines for the utilization of existing data

Statisticians, researchers and planners need to recognize and appreciate the overall importance of data compilation and evaluation and the dissemination of findings on disabled persons to the national and international community and to disability specialists as well as the importance of existing data for local planning and administration. The following materials are needed for more effective use and dissemination of existing data:

(a) Studies on the application of the International Classification of Impairments, Disabilities and Handicaps (1.16) for various statistical purposes and suggested tabulations;

(b) A review of the social and economic characteristics of disabled persons on which data were collected and the tabulations and basic indicators that might be derived from those data;

(c) An illustrative chartbook showing various ways to present data about the disabled through figures and graphs for different audiences - for example, researchers, administrators and planners, programme workers and professionals such as teachers, physicians, social workers and community health workers, and communities and families of disabled persons;

(d) A methodological study which suggests ways to integrate statistics on disabled persons from numerous data sources into a reasonably cohesive description of prevalence rates, geographical distribution and the social and economic circumstances of disabled persons;

(e) A methodological study on survey sampling issues and design problems associated with the study of disability, including methods of preparing and using a sampling frame.

These materials will stimulate greater comparability in data collection, analysis and presentation while also encouraging experimentation and attention to the numerous methodological issues which still remain.

Increased attention to organizational problems caused by the interdisciplinary nature of disability research

Institutional links

Attention is needed to institutional linkages among data producers and users regarding the dissemination and utilization of statistics on disability. For example, more integrated planning at the ministerial level on the study of disability is essential in order to achieve greater clarification of statistical issues concerning disability among ministries of health, education and social welfare and national statistical services.

The role of national and international statistical services

A major organizational problem associated with interdisciplinary surveys on such topics as disability is that the allocation of responsibility for data compilation, dissemination and analysis is at times blurred by the interdisciplinary nature of the work, which may involve specialists from health, medicine, education, labour, social welfare and statistics. When statistics on disabled persons are embedded in larger data collection systems - for example, population censuses, national household survey programmes, special national surveys of health and/or disability, or health and medical registration systems - then it becomes even more difficult to manage the results and evaluate their implications in a co-ordinated fashion. One role of national statistical offices should be to highlight the special tabulations which are or could be available for the study of disability through specially prepared resource handbooks that are periodically updated, showing the location, availability and potential use of data on disability for each country or region.

At the international level, the Vienna Affirmative Action Plan calls for statistical co-operation among Governments and stresses the need for technical co-operation in the areas of training personnel; developing management skills; research on indigenous conditions; developing methodology for surveys, including evolving common definitions of disability; strengthening

institutional links; and increasing every country's awareness of its own and other's experiences, achievements and skills in the technical areas (1.7, para. 122). With respect to those goals, the Action Plan encourages the Statistical Office of the United Nations Secretariat, together with other parts of the United Nations Secretariat and specialized agencies, to co-operate with developing countries in working toward a practical system of data collection, and in particular to prepare technical manuals or documents on how to use national data bases for the collection of disability statistics (1.7, para. 144).

The Action Plan and the World Programme of Action concerning Disabled Persons call for the United Nations Secretariat to implement technical advisory services which prepare programmes aimed at implementing technical co-operation with Governments that intend to incorporate statistical programmes regarding disability into their larger data collection systems (1.7, paras. 143-144 and 1.6, paras. 184-201). The recommended co-ordinated steps at the national and international levels should ultimately lead to increased ability on the part of the international community to monitor the global situation regarding disability while also addressing the unique requirements of individual Governments.

Increased attention to methodological issues

The concern to verify the accuracy with which the total population of impaired persons is ascertained in a given census or survey has sometimes obscured the important issue of assessing the quality and value of the numbers and distributions obtained by different data collection methods. For example, the results of several national surveys appear to have been disregarded because the percentage of the population that was reported as impaired was considered too low (for example, 1-2 per cent). In one case a survey was not published because it was decided that there was little to be learned from surveys not based on probability sampling, although the sample covered more than 15,000 impaired persons. The discarding of such data precluded their examination in depth to obtain distributions and trends or their analysis of methodological issues. The results of such surveys and censuses will always offer insights into methodological problems associated with design differences, lay reporting of impairment, perceptions of what are regarded as impairments or disabilities and definitional and conceptual problems in analysing multiple disabilities. There is a great deal of methodological and substantive information to be derived from the analysis of surveys and censuses in addition to the estimated total numbers of impaired or disabled persons found in any country. It is hoped that the critical comments and methodological problems addressed in this report will be viewed in that light.

Planning for future research

The lessons suggested by the present review of existing data in five countries for future statistical studies on disability are plentiful. Selected issues for further work are highlighted below. They are but a few of the issues which might be further addressed in future studies on disability. The present report has tried to draw attention to methodological issues encountered in the past while pointing to issues that might be addressed in future work on the subject.

Impaired women

The marked underenumeration of impaired women and the unusually high sex ratios encountered in census and survey results on impaired populations suggest that careful and detailed probes need to be instituted in order to increase the identification of impaired women in data collection activities. Experimental questions and probes need to be field-tested for their sensitivity to the problems of impaired women.

Impaired children

More careful questioning and probing into the problems of young children need to be instituted. Identifying pre-school-age children who are impaired or disabled is not an easy task, even when highly sophisticated equipment and medical techniques are used in the assessment. Although underenumeration of childhood disabilities is probably almost inevitable, that does not mean that survey reports of childhood disabilities cannot be improved through more explicit behavioural or functional questions on basic childhood developmental patterns. Indirect questioning of parents about problems they have encountered with their children may also shed light on potential problems with childhood impairments. Special surveys experimenting with various questions and subjects are needed. One additional possibility to address is that response rates on childhood disability may differ according to the respondent - for example, mother, father, grandparent, sibling or community leader.

The economic activities of impaired persons

Experimentation is needed on the measurement of the domestic and economic roles of impaired persons. It is possible that modifications in economic and occupational measures now being tried for improving the measurement of women's work might also improve the measurement of disabled persons' work, since in both cases their work is more likely to be conducted outside of formally recognized workplaces - that is, at or near the home.

Education and rehabilitation

The role of non-formal educational training and indigenous methods of rehabilitation is largely ignored in special surveys of disability. It is very important to have information on - for example - the indigenous medical and educational experts who are utilized by households for the diagnosis and explanation of impairment. Such knowledge is essential when preparing health and educational campaigns for the prevention, treatment, care and rehabilitation of impairments and disabilities. There is no information on informants currently utilized by families (be they local physicians, indigenous midwives, pharmacists or religious leaders) for the rehabilitation and education of impaired persons. Such questions might cover the use by families of local teachers to tutor problem children, the sources of knowledge and information used by families to teach young and partly paralysed children to walk, instruction for a young mother on how to nurse or feed a baby with an untreated cleft palate, critical problems faced by families when one of the family members is disabled, sources of help for those families, and costs. Special research needs to be conducted into the problems faced by families, parents and impaired persons in the search for explanations and answers to unresolved issues related to their disabilities.

Notes

1/ Suggestions on ways to measure behavioural aspects of impairment, disability and handicap have been developed by WHO in its community training manual (see 1.17).

2/ Research results in Morocco suggest that blindness rates may be higher among elderly females than males because females are more regularly exposed than males to children who are infected with trachoma (1.4).

3/ For a description of the methodological and analytical challenges associated with the integration of research results from diverse studies and different data bases in order to reach conclusions about the situation of any group or individual, see Harris M. Cooper (1.2).

4/ For example, a small and highly focused investigation by medical students of mental illness in Lebanon approached the issue of mental illness indirectly by first interviewing families about their use of pharmaceutical items. When tranquilizers or other sedatives were cited as present in the home, information was requested concerning the reasons that family members used such items. In the process, apparent psychological impairments which had not been reported in a household health and medical survey for which the interviewing had been conducted several weeks earlier were discovered. Such probing techniques and indirect questions may be required if larger numbers of mentally impaired women are to be identified through the use of household surveys.

Annex I

TECHNICAL INFORMATION ON CASE-STUDY POPULATION CENSUSES COVERING DISABILITY

The following information is provided in this annex for each census:

(a) Data source;

(b) Citations and listings of tables for disability statistics published by national statistical services from population censuses;

(c) Questions asked about disability in the census questionnaire;

(d) Categories of impairment used in the available tables;

(e) Coding instructions and/or coding schemes used for disabilities;

(f) Written field instructions given to enumerators.

The censuses covered are:

(a) Egypt: 1960 and 1976 censuses;

(b) Iraq: 1947, 1957 and 1977 censuses;

(c) Syrian Arab Republic: 1960, 1970 and 1981 censuses.

EGYPT

1960 census

Data source

1960 Census of Population, vol. 2, General Tables (2.5)*

Available tables from the above source

Table	
21	Population with disabilities by age, sex and type of disability
44	Population with disabilities by economic activity, type of disability and sex (6 years old and over)
45	Population with disabilities by employment status and sex (6 years old and over)
46	Population with disabilities by occupation, type of disability, and sex (15 years and over)
50	Population with disabilities by educational status, type of disability and sex (10 years old and over)

Questionnaire

Question number 18 is in the form of a column heading labeled "Disabilities".

Categories of impairment used in the published tables

العاهـات

English translation	Original Arabic
Sensory	
Blind	أعمـى
Loss of an eye	أعـور
Deaf and without speech (mute)	اصم وأبكـم
Physical	
Loss of one or both arms	فاقد احدى اليدين أو كليهما
Loss of one or both legs	فاقد احدى الساقين أو كليهما

*/ Numbers in parentheses refer to works cited in the list of references at the end of the present publication.

Coding scheme

Not available.

Field instructions (see 2.4, pp. 35-36)

Enumerators are required to write "Unable to work" for question 11 (economic activity) if the interviewee is of non-working age, sick or handicapped, or old and retired (p.23).

For question 12 (educational status), enumerators are not to ask a blind person whether he or she knows how to read and write. Instead, they should ask the person whether he or she has any degree and the title of the highest degree attained. If the interviewee does not hold any degree, he or she is classified as illiterate even if the person reads Braille (p.30).

Question 18 (impairment): A person is defined as impaired if he or she belongs to any of the following categories (p. 35):

Sensory

1. Blind
2. One-eyed
3. Deaf and dumb

Physical

4. Having lost one or both hands
5. Having lost one or both legs/feet.

If it appears to the enumerator that any member of the family shows one of the five impairments listed above, then the type of impairment is to be reported for question 18. The following impairments are not to be reported:

1. Hunchback
2. Paralysis
3. Ear missing
4. Distorted or damaged nose
5. One finger missing
6. Other.

Only a person whose entire hand (not one or more fingers) has been amputated is to be reported. The same applies to the lower limbs.

If none of the above-listed five types of impairment to be reported is evident in any of the family members, then the mark (-) is to be put in the corresponding cell.

It is advised that the questions be asked so as not to provoke any embarrassment, and to precede the question with some appropriate polite expression which is locally used under such circumstances.

1976 census

Data source

Population and Housing Census, 1976, vol. 1, Total Republic (2.3)

Available tables from the above source

Table

35 Distribution of the total disabled population by type of disability and sex in urban and rural Egypt and by governorate

36 Distribution of the disabled population in Egypt by type of disability, age and sex

37 Distribution of the disabled population that is 6 years old and over by employment status, type of disability and sex for Egyptians and foreigners

38 Distribution of the disabled population that is 10 years old and over by educational status, kind of infirmity and sex for Egyptians and foreigners.

39 Distribution of the disabled population that is 15 years old and over by primary occupation, type of disability and sex for Egyptians and foreigners

Questionnaire

English translation

Question 37 is in the form of a column labeled "Visible disabilities: (blind/deaf and mute/having lost either eye .....etc. .....)".

Original Arabic

سؤال ٣٧ : العاهات الظاهرة : (أعمى /فاقد السمع والنطق /فاقد احدى العينين . .الخ)

Categories of impairment used in the published tables English translation	Original Arabic
Sensory	
Blind	أعمى
Loss of an eye	اعور
Deaf and mute	اصم وابكم
Deaf	اصم
Mute	ابكم
Physical	
Amputation of one or both hands	فاقد احدى اليدين أو كليهما
Amputation of one or both legs	فاقد احدى الساقين أو كليهما
Mental	
Mentally retarded	متخلف ذهنيا
Other	
Other disabilities	عاهات أخرى

Coding scheme

Not available.

Field instructions (see 2.2, pp. 49-50)

The visible disabilities question in the census questionnaire applies to every member of the family, either by way of asking about disabilities or by noticing a disability, taking into consideration the fact that it is an extremely sensitive area of investigation.*

The enumerator is required to record the following cases, when found: blind, loss of an eye, deaf and mute, deaf alone, mute alone, loss of one or both arms or hands, loss of one or both legs, mentally retarded and other impairments (with specification). Internal illnesses, epilepsy, and psychological depression and similar syndromes are not to be included. The disability is to be checked, if present, or the sign (-) is to be placed in the column, if no disabilities are identified. The column is not to be left blank.

*The census question on "visible disability" in the original Arabic questionnaire is found in column 37, whereas in the English version it is found in column 36. The instruction manual (in Arabic) refers to column number 36 when giving instructions about how to fill in the disability question.

IRAQ

1947 census

Data source

Census of Iraq, 1947 (3.3)

Available tables from the above source

Table 2. Population by sex, disability and type of residence

This table does not provide totals. The totals used in the present report were calculated from the tables showing disability by sex for each "qadha".

Questionnaire

Three census schedules were used (see 3.3, p.1):

(a) A white-coloured schedule for members of Iraqi households;

(b) A yellow-coloured schedule for aliens;

(c) A brown-coloured schedule for persons residing in public institutions such as hotels, hospitals, barracks, prisons, boarding schools.
All three schedules covered incidence of disability in column 14, which was labeled "Physical distinguishing marks".

Categories of impairment used in the published tables

The following categories of impairment were used in the tables: blind, one-eyed, deaf, mute, totally or partially paralysed, lame and helpless, insane and feeble-minded, multiple disability, and other.

Coding scheme

Not available.

Field instructions (see 3.4, p.3)

The enumerator was required to write down the prominent physical distinguishing marks (for example, if the interviewee was black-skinned, one-eyed, blind, deaf, mute, crippled, insane, etc.) and not minor features such as boil scars on the face or colour of the eyes. Answers to the question on physical distinguishing marks were compulsory for males and optional for females. It appears that column 14 of the schedule was used to identify both race and disabilities, based on physical features.

1957 census

Data source

Abstract of the General Census of 1957 (3.1)

Available tables from the above source

Table 31. Population of Iraq by sex, religion and disabilities

Questionnaire

Column 14 is labeled "Visible physical disabilities". The accompanying instruction states, "Write healthy or disabled and then specify the type of disability."

Categories of impairment used in the published tables

English translation	Original Arabic
I. Disabilities:	
Sensory	
Blind and other disabilities	أعمى وأى عاهة أخرى
One-eyed and other disabilities	أعور وأى عاهة اخرى
Deaf	اصم
Mental	
Mentally retarded	ضعيف القوى العقلية
II. Deformities:	
Physical	
Paralysis	مشلول
Crippled and any other deformity	كسيح وأى تشويه
Hunchback and any other deformity	احدب وأى تشويه
Loss of either arm	فاقد احدى اليدين
Lame	اعرج
III. Disability and deformity	
Multiple	
Blind and any disability and deformity	
One-eyed and any disability and deformity	
Other disability and deformity	

Coding scheme (see 3.5, pp. 26-28)

I. Disability

Main and secondary impairment:

A. Blind:

and deaf
and deaf and mute
and mentally retarded

B. One-eyed:

and deaf
and deaf and mute
and mentally retarded

C. Deaf

D. Deaf-mute:

and mentally retarded

E. Mentally retarded

II. Deformity (and amputation)

Main and secondary deformity or amputation:

A. Paralysis

B. Crippled:

and hunched back and loss of either of both hands or part of an arm

and hunched back and loss of either/both hands or part of an arm

C. Hunched back:

and loss of either or both hands or part of an arm

and loss of either or both legs or part of an arm

D. Loss of either or both hands or part of an arm

E. Lame or loss of either or both legs or part of a leg

III. Disability and deformity (or amputation)

A. Blind and one of the above deformities (or other disability)*

B. One-eyed and other disability and a deformity

C. Other disabilities and deformities.

Field instructions (see 3.6, p.7)

In column 14 of the schedule, the physical condition of the respondent is to be recorded. The enumerator must write whether the interviewee is healthy or suffering from one of the following visible disabilities:

English translation	Original Arabic
Lame	أعرج
Blind	أعمى
Deaf	أصم
Feeble-minded (retarded)	ضعيف القوى العقلية
Paralysed	مشلول
Mute	أخرس
One-eyed	أعور
Ankylosis	أعضب
Cross-eyed	أحول
Bald	أقرع
Others	

If the person has more than one disability or deformity (malformation), they should be specified (e.g., deaf and mute).

* Even though the literal translation of this category is "blind or other disability or deformity", the coding scheme suggests that it is "blind and" rather than "blind or".

1977 census

Data source

General Census of the Population for the Year 1977 (3.2)

Available tables from the above source

None.

Questionnaire

Question 52: "For the disabled, put an X in the appropriate box:"

English translation	Original Arabic
Loss of both eyes (blind)	فاقد العينين
Loss of both hands	فاقد اليدين
Loss of both legs	فاقد الرجلين
Deaf and mute	أصم وأبكم
Paralysed	مشلول
Weak mental abilities	ضعيف القوى العقلية
Other (specify)	غيرها ، تذكر

Categories of impairment used in the published tables

Not available.

Coding scheme

Not available.

Field instructions

Not available.

SYRIAN ARAB REPUBLIC

1960 census

Data source

General Census of the Population, 1960 (6.4)

DEM-100
12-815

Available tables from the above source

Table

14 The physically disabled by mohafaza and sex (urban and rural)

15 The physically disabled by age group and sex

16 The physically disabled by economic activity and sex (age 6 and over)

17 The physically disabled by employment status and sex

18 The physically disabled by educational status and sex (aged 10 and over)

19 The physically disabled by occupation and sex (aged 15 and over)

Questionnaire

English translation

Question 18 reads "Disabilities: One of the following disabilities is to be checked:

Blind
One-eyed
Deaf and mute
Loss of one or both arms/hands
Loss of one or both legs

If no disability, write (-)."

Original Arabic

العاهات : تكتب احدى الحالات الآتية :

١ ـ أعمى
٢ ـ أعور
٣ ـ اصم ـ ابكم
٤ ـ فاقد احدى اليدين أو كلتيهما
٥ ـ فاقد احدى الرجلين او كلتيهما

الخالي من العاهات يكتب له (ـ) .

Categories of impairment used in the published tables

Same as those listed above, under "Questionnaire".

Coding scheme

Not available.

Field instructions (see 6.3, pp. 40-41)

A person is considered disabled if one of the following conditions applies:

(a) Blind;

(b) One-eyed;

(c) Deaf and mute;

(d) One or both arms amputated;

(e) One or both legs amputated.

If it appears that one of the family members is affected by any of those five disabilities, the disability is to be written in column 18 of the census questionnaire. Hunchbacked and paralysed people, as well as those persons who have an ear cut off, a damaged nose, or missing finger(s) and the like are not to be reported. A hand amputation means the amputation of the entire palm and not just one or more fingers. The same applies to leg amputations.

If none of the above-mentioned disabilities is applicable to any family member, then the column is to be marked (-).

The field worker is advised to ask the question about disability in such a way that it does not cause any embarrassment, as it is a sensitive area for investigation. It is recommended that the question about disability be preceded with an appropriate expression used locally when asking about such topics.

1970 census

Data source

Population Census, 1970: Syrian Arab Republic, vol. I (6.2)

Available tables from the above source

Table

26 Physically disabled by mohafaza, type of disability and sex (urban and rural)

27 Physically disabled by type of disability, age and sex

28 Physically disabled by type of disability, educational status and sex

29 Economically active, physically disabled by type of disability, occupation and sex (aged 10 and over)

30 Economically active, physically disabled by type of disability, industry and sex (aged 10 and over)

31 Economically active disabled by type of disability, employment status, and sex (aged 10 and over)

Questionnaire

English translation	Original Arabic
Question 24 of the schedule reads	
"Disabilities:	العاهات
Blind	أعمى
One-eyed	أعور
Deaf and mute	أصم وأبكم
Loss of an arm	أبتر يد
Loss of a leg	أبتر ساق
Mentally retarded.	معتوه

The mark (-) is to be put in the column if no disability is found."

توضع علامة (ـ) للخالي من العاهات .

Categories of disability used in the published tables

English translation	Original Arabic
Sensory	
Blind	أعمى
Loss of an eye	أعور
Deaf-mute	أصم وأبكم
Physical	
Loss of an arm	أبتر يد
Loss of both arms	أبتر يدين
Loss of a leg	أبتر ساق
Loss of both legs	أبتر ساقين
Mental	
Mentally retarded or mentally ill*	معتوه أو مصاب بمرض عقلي

Coding scheme

Not available.

*The mentally retarded category used in the census questionnaire was later extended at the coding stage to include reported cases of mental illness.

1981 census

Data source

Publications in preparation.

Available tables

Published sources not yet available.

Questionnaire

English translation	Original Arabic
Question 15 is labeled "the disabled:	ذوو العاهات
Blind	١ – أعمى
Deaf and mute	٢ – أصم وأبكم
Loss of one hand	٣ – أبتر يد
Loss of both hands	٤ – أبتر يدين
Loss of one leg	٥ – أبتر ساق
Loss of both legs	٦ – أبتر ساقين
Mentally retarded	٧ – معتوه
Paralysed	٨ – مشلول
Other disabilities."	٩ – عاهات أخرى تذكر

A dash (-) is to be inserted in case of no disabilities. يوضع (–) للخالي من العاهات

Field instructions (see 6.1, especially pp. 132-133)

Column 15 is reserved for people with impairments. The mark (-) is to be put for those who are not impaired. The following impairments are to be written in the column:

"Blind: If the individual has lost his or her sight totally or partially, whereby they cannot see;

Deaf and mute: If the individual has lost the sense of hearing and speech, as well as if the person had the serious difficulty with these two senses;

One-hand amputee: If the individual has lost at least the entire hand;

Both-hands amputee: If the individual has lost both hands;

One-leg amputee: If the individual has at least lost an entire foot;

Mentally retarded: If the individual has a problem whereby he or she cannot control their own behaviour and cannot distinguish between what is good or bad for him or herself;

Paralysed: If the person is partially paralysed in one limb, or if totally paralysed;

Other: If the person has another type of disability that was not mentioned above, write down the disability."

Annex II

TECHNICAL INFORMATION ON CASE-STUDY SURVEYS COVERING DISABILITY

The following information is provided below for each survey:

(a) Citations for published statistics;

(b) Survey dates;

(c) Available published tables;

(d) Summary of survey design and sample selection;

(e) The texts of questions about impairment in the questionnaire and the written field instructions for those questions;

(f) Categories of impairment used in tables.

EGYPT

Health Interview Survey (HIS)

Data source

Health in Egypt (2.6)

Survey dates

1978-1983

Available tables*

Table	
8.1	Age distribution of disabled persons surveyed during the first Health Interview Survey cycle
8.2	The relative frequency of causes of disability in different regions studied
8.3A	Distribution of disabled persons by age and cause of disability, urban areas
8.3B	Distribution of disabled persons by age and cause of disability, rural areas
8.4	The percentage distribution by age of disabled persons and their need for help

*Preliminary results from the first four cycles.

8.5 Effect of different types of disability on working status

8.6 Treatment given to disabled persons, its type and result

8.7 Frequency of use of prosthesis and rehabilitation measures for different causes of disability in the three regions studied

Survey design (see 2.6, 2.10 and 2.16)

The Health Interview Survey uses the 1976 Census of Egypt as a sampling frame. It is a 1 per cent probability sample of the civilian, non-institutionalized population of Egyptian nationals residing in Egypt. Institutionalized disabled or handicapped persons are thus not included in the survey. The survey has been fielded in four cycles. A total sample of approximately 18,000 households has been selected per cycle. The 25 governorates of Egypt were classified into seven strata and all seven strata were represented in all four cycles. Governorates belonging to the same stratum were represented in all four cycles in order to take into consideration seasonal variations. The first cycle of field work began in October 1978, the second cycle in 1979, the third cycle in 1981, and the fourth cycle in 1983. The interviews are conducted in the home by a team of male and female social workers.

The HIS questionnaire consists of eight major forms and covers a wide range of health and health-related issues - namely demographic, reproductive, environmental, health care costs and services, health status, nutrition and disability. Those households which reported on Form 3 (General Information on the Family and Household) that they had a disabled person residing with them were interviewed with the special Form 8, Disability Survey.

In addition to the household Health Interview Survey, 10 per cent of all selected families were also examined by a team of physicians, dentists and trained nurses, assisted by laboratory technicians for analysis of stool, urine and blood. The objective of the health examination survey was to identify medical conditions and illness using clinical examination of the sample subjects. The examination survey repeats questions asked on the Health Interview Survey for comparison. Results of the health examination survey were not available at the time the present report was prepared.

Questionnaire

Questions asked about impairment:

English translation	Original Arabic
Is the interviewee 1) impaired?	هل المبحوث : ١ ـ معـاق ؟
2) disabled?	٢ ـ عاجز (قعيد) ؟
Type of impairment or disability:	نوع الاعاقـة أو العجز :
A. Sensory	أ ـ بالحـواس :
Sight 1. partial 2. total	بصر ١ـ جزئي ٢ـ كلي
Auditory 1. partial 2. total	سمع ١ـ جزئي ٢ـ كلي
Speech 1. partial 2. total	كلام ١ـ جزئي ٢ـ كلي

B. Motor

Arms	1.	right	2.	left
Legs	1.	right	2.	left

ب ـ بالجهاز الحركي :

ذراع	١ ـ	يمنى	٢ـ	يسرى
أرجل	١ ـ	يمنى	٢ـ	يسرى

C. Mental ability

ج ـ بالقدرة العقلية

D. Debility

د ـ هـزال

Categories of impairment used in tables

English translation	Original Arabic
Sensory	
	البصـر
Vision	فقد جزئي للبصر
Partial loss of sight	فقد كلي للبصر (أعمى)
Total loss of sight	
	السـمع
Hearing	فقـد جزئي للسـمع
Partial loss of hearing	فقـد كلـي للسمع (أصم)
Total loss of hearing	
	الـكلام
Loss of speech	فقـد جزئي للكـلام
Partial loss of speech	فقد كلي للكلام (ابـكم)
Total loss of speech (mute)	
Physical	
	الذراعـين
Upper limbs	عاهة في الذراع الأيمن
Disabled right arm	عاهة في الذراع الأيسر
Disabled left arm	
	السـاقين
Lower limbs	عاهة في الساق الأيمن
Disabled right foot/leg	عاهة في الساق الأيسر
Disabled left foot/leg	
	الفـقـرى
Spinal	
Mental	
Mental disability (intellectual and other psychological impairments)	عاهة عقلية
Debility	هـزال
Other	

JORDAN

National Survey of the Handicapped in Jordan* (Queen Alia Fund)

Data source

National Survey of the Handicapped in Jordan (4.7).

Survey dates

1 April 1978 to 20 May 1978.

Tables available

Table No.	
1	Distribution of handicapped people according to type of handicap
2	Distribution of handicapped people according to governorates and type of handicap
3	Distribution of handicapped people according to services provided and type of handicap
4	Distribution of handicapped people according to services provided and age
5	Distribution of handicapped people according to age
6	Distribution of handicapped people according to type of handicap and the age of onset of handicap (the age the handicap was noted)
7	Distribution of handicapped people according to sex and type of handicap
8	Distribution of handicapped people according to educational attainment and type of handicap
9	Distribution of handicapped people according to occupation and type of handicap
10	Distribution of handicapped people according to monthly income and type of handicap
11	Distribution of handicapped people according to type of handicap and the degree of consanguinity between the mother and father

*In the source document the term "handicapped" is used throughout, and that usage is retained here. However, that usage in Jordan corresponds to the term "disability" as used elsewhere in the present report, following the WHO definition.

Survey design (see 4.8, pp. 7-8)

The survey was conducted by one-time registration and interviews of disabled persons. The total number of disabled people identified was 18,829. Registration was done on the East Bank only. A mass media campaign informed the public of the importance of responding to the interviewers. The interviewers were recruited from the Ministry of Education and Department of Social Affairs, and they were either social workers or school headmasters. The interviewers were provided training on the subject of disability before being sent to the field.

The objectives of the registration campaign were to strengthen co-ordination between researchers and social planners; compile a complete record of all disabled persons in the country; assess the extent of the disability problem, the types of disabilities prevalent in the country, and the socio-economic characteristics of the disabled; (d) provide benchmark data for specialized studies.

Questionnaire

A pre-coded closed-ended questionnaire was used which covered age, education, sex, income, occupation, geographical location and so on of both the disabled person and his or her family. The type of disability and the nature of the medical, rehabilitation and social welfare services received by the disabled person were also recorded on the questionnaire. A copy of the original questionnaire was not obtained for the present report.

Categories of disability used in the published tables

Sensory

Deaf and mute
Blind
Deaf-mute and blind
Deaf and blind

Physical

Paralysis

Partial paralysis
Fully paralysed

Amputee

Hand amputated
Arm amputated
Leg amputated
Hand and leg

Mental

Disability

Severely retarded
Mildly retarded
Emotionally disturbed

Detailed definitions were not obtained for the present study.

Study of disabled refugees in the Jerusalem and Jericho areas of the West Bank (United Nations Relief and Works Agency (UNRWA))

Survey date

January-September 1981.

Data source

UNRWA, "Some efforts towards 'full participation and equality'" (4.9)

Available tables

Summary table - disabled refugees in Jerusalem and Jericho area camps, 1981

Distribution of disabled refugees in Deir Ammar Camp by type of disability, sex and age group

Distribution of disabled refugees in Jalazone Camp by type of disability, sex and age

Distribution of disabled refugees in Am'ari Camp by type of disability, sex and age

Distribution of disabled refugees in Kalandia Camp by type of disability, sex and age

Distribution of disabled refugees in Shu'fat Camp by type of disability, sex, and age group

Distribution of disabled refugees in Ein-el- Sultan Camp by type of disability, sex and age group

Distribution of disabled refugees in Aqabat Jaber Camp by type of disability, sex and age group

Distribution of congenital disabilities among refugees living in the Hebron area by location, by age and type of congenital disability

Distribution of acquired disabilities among refugees living in the Jerusalem area camps by camp, age and type of acquired disability

Distribution of congenital disabilities among refugees living in the Jerusalem area camps by camp, age and type of congenital disability

Distribution of acquired disabilities among refugees living in the Nablus area camps by location of the camp, age group and type of acquired disability

Distribution of congenital disabilities among refugees living in the Nablus area camps by location of the camp, age group and type of congenital disability

Distributon of congenital disabilities among refugees living in the Nablus area by location, age group and type of congenital disability

Distribution of acquired disabilities among refugees living in the Jericho area by location, age group, and type of acquired disability

Distribution of congenital disabilities among refugees living in the Jericho area by location, age group and congenital disability

Survey Design

One hundred ninety-four impaired persons were identified among the total population in eight camps of 21,956 persons. In addition, 62 impaired persons were identified among refugees living outside of the camps in the Jerusalem and Jericho areas of the West Bank.

Questionnaire

No information has been obtained on the questionnaire.

Categories of disability used in the published tables

The following disabilities were recorded for refugees who resided in refugee camps:

Sensory

Blindness
Deafness

Physical

Amputated limbs
Paraplegic
Hemiplegic
Deformity
Polio

Mental

Mental retardation
Epilepsy.

The following disabilities were recorded for refugees who resided outside of the refugee camps:

Congenital: Sensory

Deaf and mute
Blind

Physical

Cerebral palsy

Mental

Mental retardation
Down's Syndrome (mongoloid)

Other congenital disability

Acquired: Physical

Polio (paralysis etc. from this illness)
Hemiplegia
Head injury and mental effects

Mental

Mental diseases
Epilepsy

Other acquired disabilities.

LEBANON

Sample Survey of the Economically Active Population in Lebanon (Central Statistical Directorate)

Survey date

November - December 1970.

Data source

L'enquête par sondage sur la population active (5.12)

Available tables from the above source

Table

38 Number of disabled by type of disability and sex

39 Number of disabled by type of disability and age group

40 Distribution of disabled persons by sex and age group

Survey design

The survey of the active population was conducted by the Ministère du plan using a probability sample covering 29,952 households, approximately one fifteenth of the total number of households in Lebanon at that time. Of the 29,952 selected households, 28,047 were successfully surveyed.

The sampling frame was an updated version of the 1964 official list of villages and towns. It was a two-stage cluster sample of dwellings. The stratification of the sample was by population size - i.e., Beirut and suburbs, other main towns, places with 1,000 to 9,999 inhabitants, and places with less than 1,000 inhabitants. All areas with populations of 10,000 or more were selected into the sample, and an additional 142 villages were chosen at random for strata three and four, that is, areas with fewer than 10,000 inhabitants. The second stage of sample selection involved selecting dwellings, and in that case a sampling fraction of 1/15 was chosen and a systematic sampling procedure used in order to select the dwellings in each locality.

The survey included all residents of Lebanon except for Palestinian refugees who were living in camps. Absent residents were included in the survey. Absent residents were defined as living outside of the habitual dwelling for a period not exceeding six months as well as students living abroad, hospitalized individuals, and the like. That suggests that institutionalized persons who were disabled may have been included in the survey.

The primary purpose of the survey was to study the economically active population. The interest in disabilities appears to have evolved from the surveyors' desire to estimate accurately the working population relative to expected ability to work, that is to be economically active.

Questionnaire

English translation	Original Arabic
Question 14 is titled "the impaired". It asks: Is this person impaired?	المعاقون : هل يشكو الشخص من اعاقة ؟
No	كلا
Mute	خرس
Deaf	طرش
Blind	عمى
Paralysed or one-limb amputee	مشلول أو مبتور أحد الاعضاء
Mentally retarded (obvious cases)	متخلف عقليا بشكل واضح
Question 15: "If the impaired person is being treated or being trained in a specialized institution, state the name of the institution."	

Field instructions

Although no specific mention of impairment is provided in the written documentation explaining the field work, there is a general statement that field workers were trained in survey centers and that their training included an explanation for each of the questions to be asked. In addition, the questionnaire was field-tested. Field workers were required to fill out the questionnaire through a direct interview with an adult person from the household.

Categories of impairment used in the published tables

Sensory

Deaf and/or mute — أطرش و/أو أخرس
Blind — أعمى

Physical

Paralysed or one limb amputated — مشلول أو مبتور أحد الأعضاء

Mental

Retardation — متخلف عقليا

Other disability — عاهات أخرى

Survey of the Handicapped
(Government of Lebanon, Office of Social Development (ODS))

Data sources

"Summary of the preliminary report on the survey of the handicapped in Lebanon" (5.4) and "Assessment of rehabilitation needs and resources in Lebanon" (5.11)

Survey date

1981.

Available published tables

These are reviewed in the main text of the present document.

Survey design

The survey consisted of the registration of impaired persons between the ages of 3 and 60. The total number of impaired persons identified was 19,974, of which 18,321 participated in the survey. The proportion of the total population of impaired persons in Lebanon who were interviewed is unknown.

The survey's aim was to register the entire population of impaired persons between the ages of 3 and 60. Through the use of television, radio, newspapers, public announcements and the like, families were asked to come voluntarily to special centres to register family members who were disabled. The publicity campaign encouraging people to register themselves or their children (or other relative or household member) was an important aspect of the design of the survey. Persons who were identified and who did not come to the centre for registration were visited at home and the questionnaire was filled out there. A team of approximately 300 field workers interviewed families at the centre or in their homes using the in-depth questionnaire.

Prior to the registration and survey campaign, the survey questionnaire used for the interview was pre-tested in the field with 20 field workers. A thorough discussion and re-evaluation of the questionnaire followed the pre-test until the final form was agreed upon.

The actual field work began in February 1981. It was scheduled to last for three months but was extended because of the ongoing political situation. In order to ensure that impaired persons residing in all parts of Lebanon were registered, registration centres were set up in every region in principal villages, district towns or large cities and their suburbs. Large cities were divided into several areas. A large proportion of the impaired were interviewed in their homes rather than at the centres either because of financial difficulties or because of their reservations about registering.

The objectives of the survey are set out in the unpublished report of the survey (5.11, pp. 10-12), as follows:

(a) To contribute to the International Year of Disabled Persons proclaimed by the United Nations;

(b) To assess the problem of disability in Lebanon and its distribution among the different social classes and across regions;

(c) To identify the causes of physical and mental disability as well as the factors explaining the incidence of impairment, especially in view of the increasing complexity of social life and emergency situations due to internal strife and international wars;

(d) To prepare a list of all physically and mentally impaired persons in Lebanon, with information on their sex, age, address and type of impairment, so that a file could be prepared on each individual for programmme planning purposes;

(e) To provide both individual and familial information to help assess the situation of the disabled inviduals as members of families and as a group, with particular attention to educational and social implications;

(f) To classify disabled persons by type and category of impairment;

(g) To increase public awareness of the problems of the disabled and to promote a more positive opinion about the disabled community;

(h) To offer findings that could be used by both the public and private sector in the development of effective services for the welfare and health of the disabled as well as in the realm of training, rehabilitation, and employment.

Questionnaire

A pre-coded questionnaire was designed with a total of 100 questions. It is reproduced in annex III below in the original Arabic and in English translation. Several questions were open-ended, and a coding classification scheme was devised for them after the forms were returned.

Field instructions

Question	Instruction
29	Any facial structure is considered normal, even if deformed, except for mongoloids.
44	A person is considered mentally ill (or insane) if his or her family and community describes him or her as such, and if he or she is more than 20 years old. If under 20 years of age, the respondent cannot be described as mentally ill.
55-57	A person with a weakness in one eye or one ear is not considered impaired.
58	Amputated fingers or toes are not considered impairments.
79	The onset of an impairment also means the first time that parents noticed the impairment.

Categories of impairment used in the published tables

Sensory

Blind
Deaf
Mute

Physical

Amputation
Paralysis
Deformity
Other unspecified physical disability

Multiple impairments

Sensory/sensory
- Blind and deaf
- Blind and mute
- Deaf and mute
- Blind, deaf and mute

Sensory and physical
- Blind and amputee
- Deaf and amputee
- Mute and amputee
- Blind, deaf and amputee
- Blind, mute and amputee
- Deaf, mute and amputee
- Blind, deaf, mute and amputee

Physical/physical
Paralysis and rheumatism
Paralysis and deformity
Rheumatism and deformity
Paralysis, rheumatism and deformity
Paralysis and other unspecified physical disability
Paralysis and other unspecified
Deformity and other unspecified
Paralysis, deformity and unspecified
Paralysis, rheumatism, deformity and unspecified

Mental impairments (intellectual and other psychological impairments

Study of the Handicapped in Lebanon
(International Confederation of Catholic Organizations for Charitable and Social Action (CARITAS))

Data source

Les handicapés au Liban (5.3)

Survey date

October 1980-January 1981.

Available published tables and survey design

This was a one-time registration survey which identified 11,791 impaired persons. The study was not intended to be a complete enumeration or probability sample of the impaired, as those objectives were beyond the scope of the available resources and a national sampling frame was not available. Rather, the study's aim was to register as many of the impaired persons residing in Lebanon as possible. The survey was conducted in both rural and urban areas. The urban areas consisted of Beirut, its suburbs, Tripoli, Jounieh, and Zahle. The remaining areas were considered rural. The urban areas were divided into 19 sectors, and each sector was grouped into several centres. A centre was the smallest work unit and referred to either a district or to a specified number of buildings. Rural areas were divided into 36 sectors (officially included in the qaza divisions), and each sector included a village or an agglomeration of small neighbouring villages.

Contacts were established with local authorities in specialized institutions and educational establishments. Each field worker worked in his or her own area of residence, recording the names of all the impaired persons he or she knew or heard about. In urban settings, especially, a great deal of information was gathered about impaired persons through school systems, where students reported names of impaired persons whom they knew. There were three main types of field workers: social and health workers in the community who had knowledge of the disabled and a certain amount of rapport with impaired persons and their families; community officials such as mayors and staff of social workers who did not work with impaired persons but who, because of

their social and professional status, had a number of important community contacts; and social welfare and religious organizations. All field workers volunteered their services.

The resultant list of impaired persons included only some unknown portion of all impaired persons living in the areas covered. The list was compared with lists of registered names of impaired persons in nearby institutions and those kept by governmental groups, in order to estimate the ability of the survey to identify already registered persons. The ratio of persons who were identified both in the survey and on registered lists to the total number of persons on the registered lists was assumed to be the same as the ratio of the total impaired population identified in the survey to the total impaired population, including those not identified in either listing. Had the sample been a national probability one, such a ratio could have been used to estimate the total disabled population. However, since it was not a probability sample, any inference concerning the total impaired population is subject to a considerable and unknown margin of error. Thus, the only table from the data presented in the present report is the table on the impaired persons actually surveyed.

Questionnaire

The questionnaire consisted of:

(a) A form for the disabled residing in household in the same area as the field worker;

(b) A form for the disabled living in specialized institutions;

(c) A form used only in rural areas for disabled persons who had resided in the same area as the field worker but who had moved outside of that area.

Field instructions

Not available.

Categories of disability used in the published tables

Mental

1. Mental retardation

2. Mental illness

Sensory

3. Visual impairment
   Blindness
   Amblyopia
   Loss of an eye

4. Communication
   Weak hearing and speech problems
   Deafness, loss of speech (mute) and deaf-mute

Physical

5. Paralysis
   One upper limb
   One lower limb
   Paraplegia
   Hemiplegia
   Quadriplegia
   Poliomyolitis
   Spasticity
   Undetermined

6. Amputee
   One upper limb
   One lower limb
   Two upper limbs
   Two lower limbs
   More than two limbs

7. Physical deformity
   Deformity which hinders movement
   Physical deformity

Multiple

8. Multiple disability
   Mental retardation with at least one more disability
   Mental illness with at least one more disability
   Deaf-mute with at least one more disability
   Blind with at least one more disability

The following explanations were provided for the categories:

(a) With respect to intellectual impairment, mild, moderate and severe retardation were grouped into one major category - that is, mentally retarded;

(b) Only severely mentally ill - i.e., pathological cases admitted to an institution and the like - were to be classified under mental illness;

(c) Field workers did not have a clear idea of what amblyopia was and could not easily classify persons in that ocular category. Similar difficulties were found in the identification and classification of hearing and speech problems;

(d) Deaf, mute, and deaf-mute disabled were to be classified into one aural/language category due to the fact that field workers did not have operational definitions of what each subcategory should include, and it was therefore difficult to distinguish between them at the coding stage;

(e) Amputees included only those persons whose hand or foot was amputated and not cases of finger or toe amputations;

(f) In the case of physical deformity, congenital deformities and deformities due to accidents were grouped together.

Annex III

SELECTED NATIONAL SURVEY QUESTIONNAIRES ON DISABILITY

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HEALTH INTERVIEW SURVEY: EGYPT, 1978-1979
(Questionnaire No. 8: Disability)

(English translation)

Number of forms completed by this family: _____

Province: _____ District: _____ Village _____

Enumeration areas: _____

House

House number: _____

Family number: _____

Individual number (as listed in the family's identification record: _____

Name: _____

Age: Day _____ Month _____ Year _____

Sex: Male _____ Female _____

Relationship to head of family: _____

Occupation: _____

Educational status: _____

Is the interviewee 1) disabled?
2) handicapped?

Type of disability or handicap:

A. Sensory

Sight	1.	partial	2.	total
Auditory	1.	partial	2.	total
Speech	1.	partial	2.	total

B. Motor

Arms	1.	right	2.	left
Legs	1.	right	2.	left

C. Mental ability

D. Debility

Causes of disability or handicap

1. Present at birth
2. Occupational accident
3. Injury not work related
4. Chronic disease
5. Others (specify) _____

HEALTH INTERVIEW SURVEY: EGYPT, 1978-1979
(Questionnaire No. 8: Disability)
(Original)

مشروع بحث الخريطة الصحية لمصر
وزارة الصحة

ملحوظة : كل البيانات الدالة على شخصية صاحب الاستمارة ستظل في سرية تامة أو تستخدم فقط لأغراض البحث ولن تعطى أو يسمح بإطلاعها لأى شخص آخر مهما كان الغرض.

٨

(استمارة (٨)

العجز والاعاقة

عدد الاستمارات التى استكملت للاسرة من هذه الاستمارة ( )

محافظة : ..... قسم / مركز ..... قرية : .....

منطقة العد

رقم الاسرة :

رقم الفرد (المسلسل فى صحيفة الاسرة)

الاسم : .....

السن : ( ) سنة

النوع : ١ـ ذكر ( ) ٢ـ انثى ( )

القرابة لرب الاسرة : .....

المهنة : .....

الحالة التعليمية : .....

ـ هل المبحوث : ١ـ معاق ؟ ( ) ٢ـ عاجز (قعيد) ؟ ( )

نوع الاعاقة او العجز :

١ـ بالحواس :

بصر	١ـ جزئى	( )	٢ـ كلى	( )
سمع	١ـ جزئى	( )	٢ـ كلى	( )
كلام	١ـ جزئى	( )	٢ـ كلى	( )

ب ـ بالجهاز الحركى :

ذراع	١ـ يمنى	( )	٢ـ يسرى	( )
رجل	١ـ يمنى	( )	٢ـ يسرى	( )
عمود فقرى		( )		

جـ ـ بالقدرة العقلية ( )

د ـ هزال ( )

سبب الاعاقة او العجز :

١ـ خلقى ( ) ٢ـ اصابة عمل ( ) ٣ـ اصابة خارج العمل ( )

٤ـ مرض مزمن ( ) ٥ـ أخرى تذكر ( )

Duration (in years) of disability or handicap _____years

Are you using compensatory equipment?

1. No 2. Yes

If yes, specify _____

Are you currently undergoing treatment?

1. No 2. Yes

If yes, what type of treatment?

1. Internal
2. Surgical
4. "Home remedy" (local folk practice)
8. Other

What is the result of the treatment?

1. Improvement
2. No improvement

Need for others' assistance?

1. Going up and down the stairs
2. Walking
3. Feeding (eating)
8. Dressing
16. Defacation and/or urination (toilet)

Effect of disability on work:

1. Handling previous job
2. Handling new job
3. Not working

If working,

1. With rehabilitation 2. Without rehabilitation

Are you insured?

1. No 2. Yes

Were you compensated for your disability or injury?

1. No 2. Yes

مدة الاعاقة او العجز بالسنوات ( )

هل تستخدم اجهزة تعويضية ؟

١ـ لا ( ) ٢ـ نعم ( )

في حالة " نعم " ما هو ؟

هل انت تحت العلاج الان ؟

١ـ لا ( ) ٢ـ نعم ( )

ما هو نوع العلاج ؟

١ـ باطني ( ) ٢ـ جراحي ( )
٤ـ طبيعي ( ) ٨ـ آخر ( )

ما نتيجة العلاج ؟

١ـ تحسن ( ) ٢ـ لم يتحسن ( )

الاحتياج لمعاونة الاخرين :

١ـ لا ( ) ٢ـ نعم ( )

في حالة الاجابة "بنعم" ما نوع المعاونة ؟

١ـ نزول وصعود السلم ( ) ٢ـ المشي ( )
٤ـ الاكل ( ) ٨ـ تغيير الملابس ( )
١٦ـ قضاء الحاجة ( )

تاثير الاعاقة على العمل :

١ـ يؤدي العمل السابق ( )
٢ـ يؤدي عملا جديدا ( )
٣ـ لا يؤدي عملا ( )

اذا كان يعمل :

أ ـ بعد تاهيل ( ) ٢ـ بدون تاهيل ( )

هل انت مؤمن عليك ؟

١ـ لا ( ) ٢ـ نعم ( )

هل اعطيت تعويضات بسبب العجز او الاصابة ؟

١ـ لا ( ) ٢ـ نعم ( )

STUDY OF THE HANDICAPPED IN LEBANON
(CARITAS), 1981

(English translation)

Form (1): Enumerator: Centre
Date:

First and last name of the impaired	Date of birth	Sex M	Sex F	Type of impair-ment	Place of birth	Address: District	Street	Bldg.	Tel.

Form (2) is identical except it requests "Family address" instead of "address" and "Specialized institution where the impaired person is located".

Form (3) is identical to (1) except that it asks for "Usual address" instead of "Address".

CARITAS - LIBAN **FICHE 1**

Secteur : Centre :

Enquêteur : Date :

Prénom et nom du handicapé	Date de naissance	Sexe		Nature du handicap	Lieu de naissance	ADRESSE			
		M	F			Quartier	Rue	Immeuble	Tel.

CARITAS - LIBAN **FICHE 2**

Secteur : Centre :

Enquêteur : Date :

Prénom et nom du handicapé	Date de naissance	Sexe		Nature du handicap	Lieu de naissance	Adresse de la famille				Institution spécialisée où le handicapé est placé
		M	F			Quartier	Rue	Imm	Tel.	

CARITAS - LIBAN **FICHE 3**

Secteur : Centre :

Enquêteur : Date :

Prénom et nom du handicapé	Date de naissance	Sexe		Nature du handicap	Lieu de naissance	Adresse habituelle			
		M	F			Quartier	Rue	Immeuble	Tel.

SURVEY OF THE HANDICAPPED: LEBANON, 1981*

(English translation)

(Page 2)

[Information restricted to interviewee]

1. First name of interviewee: _____ Father's name: _____ Last Name: _____

2. Degree of relationship of interviewee to disabled:
   Disabled Person himself _____ His father _____ His mother: _____
   One of his siblings _____
   Other relative (specify): _____

[Personal and familial information about disabled]

3. First and last name of disabled: First name: ____ Father's name: _____ Last Name: _____

4. Residence of disabled (according to identity card): _____
   Caza Town District

5. Number of file: _____

6. Family's address: _____
   Caza Town District

   _____
   Street Bldg. Tel. No.

7. The disabled is currently living: With his family [ ]
   In a Center or Institution [ ]

8. (If in center or institution) write:
   Name of center or institution: _____
   Address: Caza: _____ Town: _____
   District _____ Street: _____
   Bldg: _____ Telephone Number: _____

9. Sex of disabled: Male [ ] Female [ ]

10. Year of birth: _____

11. Birth order of disabled: Only child [ ] Eldest [ ] Youngest [ ]
    Between eldest and youngest [ ]

12. Marital status of disabled: Bachelor [ ] Married [ ] Divorced [ ]
    Widower [ ] Separated [ ]

13. (If married, divorced, widower or separated)
    A. Specify number of living children: _____
    B. Specify number of children dead age 6 and below _____
    C. Specify number of children dead age 6 and above: _____

*Government of Lebanon, Office of Social Development.

حقل مخصص للترميز، اتركه فراغاً

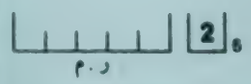
٢

معلومات موجزة عن المستجوب

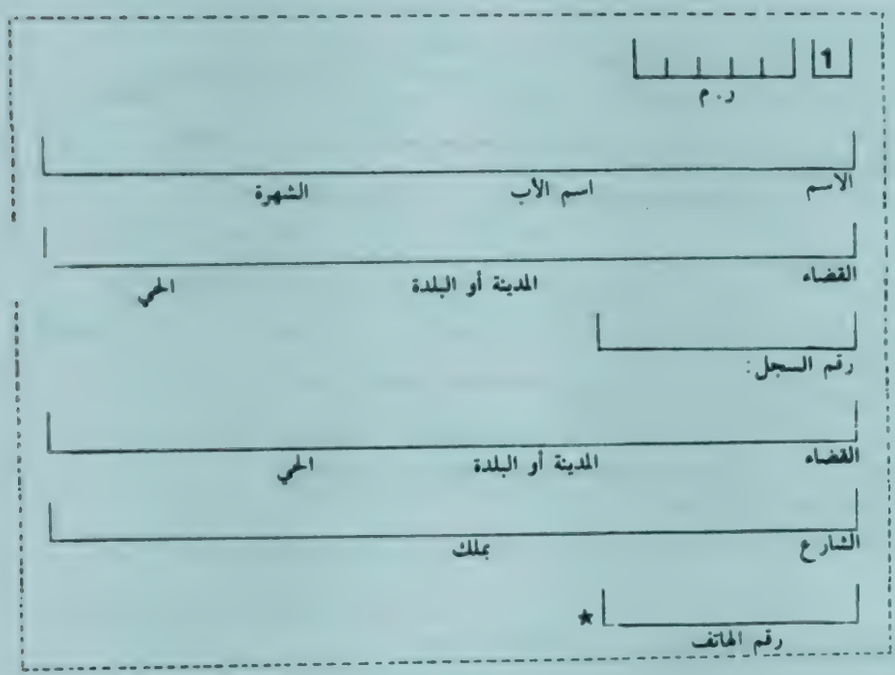
١ ـ إسم المستجوب: _____ إسم أبيه: _____ شهرته: _____

٢ ـ صلة قرابته بالمعاق: المعاق نفسه ☐[1]، أبوه ☐[2]، أمه ☐[3]، أحد أخوته ☐[4]،

قريب آخر حدّد صلة القرابة: _____



معلومات شخصية وعائلية عن المعاق



٧ ـ يقيم المعاق حالياً: مع أسرته ☐[1]، في مركز أو مؤسسة ☐[2].

٨ ـ (إذا في مركز أو مؤسسة أذكر):

اسم المركز أو المؤسسة: _____

عنوانه (ها): القضاء: _____ المدينة أو البلدة: _____

الحي: _____ الشارع: _____

بملك: _____ رقم الهاتف: _____

٩ ـ جنس المعاق: ذكر ☐[1]، أنثى ☐[2]، ١٠ ـ سنة ولادته: _____

١١ ـ رتبته بين أخوته: ولد وحيد ☐[1]، الأكبر سناً ☐[2]، الأصغر سناً ☐[3]، بين الأكبر والأصغر ☐[4].

١٢ ـ وضعه الزواجي: أعزب ☐[1]، متزوج ☐[2]، مطلق ☐[3]، أرمل ☐[4]، هاجر ☐[5].

١٣ ـ (إذا متزوج، مطلق، أرمل أو هاجر):

أ ـ عدد الأولاد الأحياء: _____

ب ـ عدد الأولاد المتوفين عن عمر يقل عن ٦ سنوات _____

ج ـ عدد الأولاد المتوفين عن عمر ٦ سنوات أو أكثر _____

14. Number of brothers and sisters of disabled:
    A. Living: _____
    B. Dead age 6 and less: _____
    C. Dead age 6 and more: _____
15. Religious sect: [ ] Maronite [ ] Greek Orthodox [ ] Greek Catholic
    [ ] Protestant [ ] Syrian Orthodox [ ] Chaldean
    [ ] Assyrian [ ] Armenian Catholic [ ] Armenian Orthodox
    [ ] American Protestant [ ] Roman Catholic [ ] Sunni
    [ ] Shi'a [ ] Druze [ ] Alawite [ ] Jewish
    [ ] Other (specify) _____
    [ ] Christian [ ] Muslim
16. Educational status of disabled person's father:
    [ ] Illiterate [ ] Elementary [ ] Intermediate [ ] Secondary [ ] College and above
17. Birth year of disabled person's father: _____
18. Principal occupation of disabled person's father: _____
19. Is disabled person's father currently working: Yes [ ] No [ ] Dead [ ]
20. (If dead) specify cause of death: _____
21. Educational status of disabled person's mother:
    [ ] Illiterate [ ] Elementary [ ] Intermediate [ ] Secondary
    [ ] College and above
22. Birth year of disabled person's mother: _____
23. Principal occupation of mother: _____
24. Is disabled person's mother currently working: [ ] Yes [ ] No [ ] Dead
25. (If dead), specify cause of death: _____
26. Degree of relationship between mother and father:
    [ ] His cousin (paternal uncle) [ ] His cousin (paternal aunt)
    [ ] His cousin (maternal uncle) [ ] His cousin (maternal aunt)
    [ ] Further relation on grandfather's side
    [ ] Further relation on grandmother's side
    [ ] No relationship

[Information about mental disability]

27. Is he mentally disabled [ ] Yes (continue this section)
    [ ] No (refer to question 44)
28. Does the disabled person experience epileptic fits or loss of consciousness?
    [ ] Yes [ ] No
29. Is the disabled person's face [ ] Normal [ ] Mongoloid
30. Is the disabled person's age: [ ] Between 3 and 60 years [Continue this section]
    [ ] Less than 3 years (refer to question 51)
31. He walks: [ ] Normally [ ] With difficulty [ ] Doesn't walk at all
32. He speaks: [ ] Normally [ ] Doesn't build meaningful sentences
    [ ] Doesn't speak yet expresses himself through gestures
    [ ] Doesn't speak at all
33. He understands speech: [ ] Normally [ ] Partially
    [ ] Doesn't understand what he is told
34. He articulates: [ ] Normally [ ] Articulates well some letters
    [ ] Doesn't articulate letters well
    [ ] His speech is not understood
    [ ] He doesn't articulate at all
35. Toilet training: [ ] Normal (no urinal or fecal incontinence)
    [ ] Nocturnal urinal incontinence
    [ ] Daytime urinal incontinence

٣

١٤ ـ عدد أخوة وأخوات المعاق: أ ـ الأحياء: _____ 36

ب ـ المتوفين عن عمر يقل عن ٦ سنوات: _____ 37

جـ ـ المتوفين عن عمر ٦ سنوات أو أكثر: _____ 38

١٥ ـ المذهب: ماروني ☐1، روم أرثوذكس ☐2 روم كاثوليك ☐3، بروتستانتي ☐4 40

سرياني ☐5، كلداني ☐6، أشوري ☐7 أرمني كاثوليك ☐8، أرمني ارثودكس ☐9

أرمني إنجيلي ☐10، لاتيني ☐11، سني ☐12، شيعي ☐13، درزي ☐14، علوي ☐15،

يهودي ☐16، غير ذلك ☐17، حدّد _____ مسيحي ☐18، مسلم ☐19

١٦ ـ مستوى تعليم والد المعاق: أمي ☐1، ابتدائي ☐2، متوسط ☐3، ثانوي ☐4، جامعي وما فوق ☐5 41

١٧ ـ سنة ولادة والد المعاق: _____ ١٨ ـ مهنة والد المعاق الرئيسية بالتحديد: _____ 45

١٩ ـ هل والد المعاق يعمل حاليا: نعم ☐1، لا ☐2، متوفى ☐3، ٢٠ ـ (إذا متوفى) سبب الوفاة: _____ 47

٢١ ـ مستوى تعليم والدة المعاق: أمية ☐1، ابتدائي ☐2، متوسط ☐3، ثانوي ☐4 جامعي وما فوق ☐5 48

٢٢ ـ سنة ولادة والدة المعاق: _____ ٢٣ ـ مهنة والدة المعاق الرئيسية بالتحديد: _____ 52

٢٤ ـ هل والدة المعاق تعمل حاليا: نعم ☐1 لا ☐2 متوفاة ☐3 ٢٥ ـ (إذا متوفاة)، سبب الوفاة: _____ 54

*٢٦ ـ قرابة الأم للأب ابنة عمه ☐1، ابنة عمته ☐2، ابنة خاله ☐3، ابنة خالته ☐4، قرابة أبعد جهة اخد ☐5. 56

قرابة أبعد جهة الجدة ☐6، لا قرابة بين الأم والأب ☐7

معلومات حول الإعاقة العقلية

٢٧ ـ هل هو معاق عقليا: نعم ☐1، تابع الأسئلة 57

لا ☐2، إنتقل إلى السؤال رقم [٤٤] صفحة ٤

٢٨ ـ هل يصاب المعاق بحالة صرع أو غياب عن الوعي: نعم ☐1، لا ☐2. 58

٢٩ ـ هل شكل وجه المعاق: طبيعي ☐1، منغولي ☐2. 59

بين ٣ سنوات و٦٠ سنة ☐1 تابع الأسئلة

٣٠ ـ هل عمر المعاق: 60

أقل من ٣ سنوات ☐2 إنتقل إلى السؤال رقم (٥١) صفحة ٥

٣١ ـ يمشي: بشكل طبيعي ☐0، بصعوبة ☐1، لا يمشي أبدا ☐2. 61

٣٢ ـ يتكلم: بشكل طبيعي ☐0، لا يتكون جملا ذات معنى ☐1، لا يتكلم ويكتفي بعض بالإشارة ☐2، لا يتكلم أبدا ☐3. 62

٣٣ ـ يفهم الكلام: بشكل طبيعي ☐0، جزئيا ☐1، لا يفهم ما يُقال له أبدا ☐2. 63

٣٤ ـ ينطق: بشكل طبيعي ☐0، يلفظ جيدا بعض الأحرف ☐1، لا ينطق الأحرف جيدا ☐2، لا يفهم كلامه ☐3، لا ينطق أبدا ☐4 64

*٣٥ ـ النظافة: طبيعي (لا يبلل ولا يوسخ) ☐0 يبلل في الليل ☐1، يبلل في النهار ☐2، يوسخ في الليل ☐3، يوسخ في النهار ☐4 ★ 66

36. Feeds himself with spoon [ ]
Needs others' assistance for eating with spoon [ ]
Cannot eat with spoon by himself [ ]

37. Cuts with knife by himself [ ]
Needs assitance for using the knife [ ]
Cannot use the knife by himself [ ]

38. Puts on his clothes by himself [ ]
Dresses alone but needs others' assistance [ ]
Dressed by others [ ]

39. Is the disabled person's age: [ ] Between 5 and 60 years
[ ] Less than 5 years (refer to question 51)

40. - Can go out and come back home by himself [ ]
- Can go out by himself but cannot come back home by himself [ ]
- Cannot either leave the house or come back home by himself [ ]

41. - Can buy the items he is asked to buy [ ]
- Cannot buy the items he is asked to buy [ ]

42. - Enjoys playing with peers [ ]
with children younger than him [ ]
with children older than him [ ]

- Enjoys adults' company [ ]
- Spends most of his time alone [ ]

43. - He behaves very normally [ ]
- He emits unusual or abnormal behavior [ ]
State examples, if available, of abnormal behavior: _____

---

44. Is the disabled mentally ill: Yes [ ] (continue this section)
No [ ] (refer to question 51)

45. Was the disabled considered mentally ill according to a clinical diagnosis:
[ ] Yes [ ] No

46. (If yes), what is the diagnosis: _____

---

47. Was he previously treated medically: [ ] Yes No [ ]

48. (If yes), in a hospital or sanatorium [ ] at home [ ]

49. Is he currently undergoing a medical treatment: Yes [ ] No [ ]

50. (If yes), in a hospital or sanatorium [ ] at home [ ]

٣٦ - يأكل بمفرده بالملعقة ☐[1] ، يحتاج إلى مساعدة عند الأكل بالملعقة ☐[2] ،
لا يستطيع أن يأكل بالملعقة بمفرده ☐[3]

٣٧ - يقطع بالسكين بمفرده ☐[1] ، يحتاج إلى مساعدة عند استعمال السكين ☐[2] ،
لا يستطيع أن يستعمل السكين بمفرده ☐[3]

٣٨ - يلبس ثيابه بمفرده ☐[1] ، يلبس ثيابه بمفرده ولكن مع مساعدة الآخرين ☐[2] ،
يُلبسه الآخرون ثيابه ☐[3]

٣٩ - هل عمر المعاق: بين ٥ سنوات و ٦٠ سنة ☐[1] ، تابع الأسئلة
أقل من ٥ سنوات ☐[2] ، إنتقل إلى السؤال رقم (٥١) صفحة ٥

٤٠ - يستطيع الخروج من البيت والعودة إليه بمفرده ☐[1]
يستطيع الخروج من البيت بمفرده ولكن لا يستطيع العودة إليه بمفرده ☐[2] ،
لا يستطيع الخروج من البيت أو العودة إليه بمفرده ☐[3]

٤١ - يستطيع شراء ما يطلب إليه شراؤه ☐[1] ، لا يستطيع شراء ما يطلب إليه شراؤه ☐[2] ،

٤٢ * - يميل إلى اللعب مع أولاد في مثل عمره ☐[1] ، مع أولاد أصغر منه سناً ☐[2] ، مع أولاد أكبر منه سناً ☐[4] ،
يميل إلى مرافقة البالغين ☐[8] ، يبقى وحيداً معظم الوقت ☐[16]

٤٣ - يتصرف بشكل طبيعي تماماً ☐[1] ، يقوم بتصرفات غير مألوفة أو غير طبيعية ☐[2]

إذكر أمثلة عن التصرفات غير الطبيعية (إذا وجدت): _____

_____

_____

٤٤ - هل المعاق مصاب بمرض عقلي: نعم ☐[1] ، تابع الأسئلة
لا ☐[2] ، إنتقل إلى السؤال رقم (٥١) صفحة ٥

٤٥ - هل اعتبر المعاق مريضاً عقلياً استناداً إلى تشخيص طبي: نعم ☐[1] ، لا ☐[2] ،

٤٦ - (إذا نعم)، ما هو هذا التشخيص: _____

_____

_____

٤٧ - هل سبق أن عولج طبياً: نعم ☐[1] ، لا ☐[2] ،

٤٨ * - (إذا نعم): في مستشفى أو مصح ☐[1] ، في المنزل ☐[2]

٤٩ - هل يتلقى حالياً علاجاً طبياً: نعم ☐[1] ، لا ☐[2] ،

٥٠ * - (إذا نعم): في مستشفى أو مصح ☐[1] ، في المنزل ☐[2]

[Information about physical disability]

51. Is he physically disabled: [ ] Yes (continue this section)
[ ] No (refer to question 71)

52. Is the disabled blind: Yes [ ] No [ ]

53. (If yes), Totally blind [ ] Has severe weakness in vision [ ]

54. Is the disabled deaf, Yes [ ] No [ ]

55. (If yes), Totally deaf [ ] Has severe weakness in hearing [ ]

56. Is the disabled mute: Yes [ ] No [ ]

57. (If yes), Totally mute [ ] Has severe weakness in speech [ ]

58. Does the disabled have one or more amputated limbs:
[ ] Yes [ ] No

59. (If yes), specify the amputated part: Upper right limb [ ] Upper left limb [
Lower right limb [ ] Lower left limb [ ]

60. (If yes), specify:

A. Level of paralysis: One limb paralysis [ ]
Paralysis of lower limbs [ ]
One-side paralysis [ ]
Complete paralysis [ ]

B. Type of paralysis: Child paralysis (e.g. polio?) [ ]
Brain paralysis [ ]
Other type of paralysis [ ]

C. Was he previously vaccinated against paralysis
[ ] Yes [ ] No

D. (If yes), specify number of vaccinations: _____

62. Is the disabled affected in the bones or does he have a long-lasting rheumatism in joints which hinders his movement severely?
[ ] Yes [ ] No

63. (If yes), is it [ ] Spinal bifida [ ] In one limb
[ ] In more than one limb

64. Was the disabled born with a physical deformity: Yes [ ] No [ ]

65. (If yes), is the deformity: in height: Much shorter than average [ ]
Much taller than average [ ]
in one or more bodily organs [ ]

66. Does the disabled have any physical disability not mentioned above:
Yes [ ] No [ ]

67. If yes), specify nature: _____

معلومات حول الإعاقة الجسدية

٥١ هل هو معاق جسدياً: نعم ☐[1]، تابع الأسئلة — لا ☐[2]، إنتقل إلى السؤال رقم ٧١ صفحة ٦ — 26

٥٢ ـ هل المعاق أعمى: نعم ☐[1]، لا ☐[0] — 27

٥٣ ـ (إذا نعم): فاقد البصر تماماً ☐[1]، لديه ضعف شديد في البصر ☐[2] — 28

٥٤ ـ هل المعاق أصم (أطرش): نعم ☐[2]، لا ☐[0] — 29

٥٥ ـ (إذا نعم): فاقد السمع تماماً ☐[1]، لديه ضعف شديد في السمع ☐[2] — 30

٥٦ ـ هل المعاق أبكم (أخرس): نعم ☐[4]، لا ☐[0]، — 31

٥٧ ـ (إذا نعم): فاقد النطق تماماً ☐[1]، لديه ضعف شديد في النطق ☐[2] — 32

٥٨ ـ هل المعاق مصاب ببتر واحد أو أكثر في الأطراف: نعم ☐[8]، لا ☐[0]، — 33

* ٥٩ ـ (إذا نعم): أذكر الأطراف المبتورة: طرف علوي أيمن ☐[1] طرف علوي أيسر ☐[2]، — 35

طرف سفلي أيمن ☐[4]، طرف سفلي أيسر ☐[8]،

٦٠ ـ هل المعاق مصاب بشلل: نعم ☐[1]، لا ☐[0]، — 36

٦١ ـ (إذا نعم)، أذكر:

أ ـ مستوى الشلل: شلل طرف واحد ☐[1]، شلل الأطراف السفلى ☐[2]، — 37

شلل نصفي (فالج) ☐[3]، شلل كل الأطراف ☐[4]،

ب ـ نوع الشلل: شلل أطفال ☐[1]، شلل دماغي ☐[2]، أنواع الشلل الأخرى ☐[3]، — 38

ج ـ هل سبق وتلقح ضد الشلل: نعم ☐[1]، لا ☐[2]، — 39

د ـ (إذا نعم)، عدد مرات التلقيح: _____ — 40

٦٢ ـ هل المعاق مصاب في العظام أو بروماتزم مزمن في المفاصل يعيق حركته بشكل شديد: نعم ☐[2]، لا ☐[0] — 41

* ٦٣ ـ (إذا نعم)، هل الإصابة: في العمود الفقري ☐[1]، في طرف واحد ☐[2]، في أكثر من طرف ☐[4]، — 42

٦٤ ـ هل ولد المعاق مشوهاً جسدياً: نعم ☐[4]، لا ☐[0] — 43

* ٦٥ ـ (إذا نعم)، هل التشوه: طول قامة أقل بكثير من المتوسط (قزم) ☐[1] طول قامة أكبر بكثير من المتوسط (عملاق) ☐[2] — 44

تشوه في واحد أو أكثر من الأعضاء ☐[4]

٦٦ ـ هل المعاق مصاب بإعاقة جسدية لم يرد ذكرها أعلاه: نعم ☐[8]، لا ☐[0]، — 45

٦٧ ـ (إذا نعم)، أذكرها بالتفصيل: _____ — 46

68. Was the disabled previously treated: Yes [ ] No [ ]

69. (If yes), A. Type of treatment: Medical [ ] Physiological [ ]
Surgical [ ] Artificial limbs [ ]
Prosthesis (aids) [ ]

B. Type of institution which handled treatment:
General [ ] Private or Public [ ] Private in collaboration with public institution [ ] Private clinic [ ] Abroad [ ]

C. Financial contribution:
[ ] Department of Social Development
[ ] Ministry of Health
[ ] Private institution (local or international)
[ ] Private institution in collaboration with public institution
[ ] Disabled person's own expenses
[ ] Other (specify) _____

70. Does the disabled wish to live in an institution specialized for disabled?
[ ] Yes [ ] No

[Information about training, educational and occupational status of disabled]

71. Did the disabled previously receive any rehabilitation or training related to his disability: [ ] Yes [ ] No

72. (If yes), A. Type of rehabilitation or training: _____

B. Type of institution where it was achieved:
General [ ] Public or Private [ ] Private in collaboration with public institution [ ] Private clinic [ ] Abroad [ ]

73. Did the disabled previously join a school or center of education:
Yes [ ] No [ ]

74. (If yes), A. Completed stage: Below elementary [ ]
Elementary [ ]
Intermediate [ ]
Secondary [ ]
University [ ]
Post-Graduate [ ]

B. Type of education: General [ ]
Technical [ ]
University [ ]

C. (If Technical or University) specify specialization: _____

75. Is the disabled currently pursuing:
private training [ ] his education [ ]
is not pursuing [ ]

76. Principal occupation of disabled (specify) _____

77. Is the disabled currently working? Yes [ ] No [ ]

78. (If yes), in a public institution [ ]
in a private institution [ ]
independent [ ]

47 ٦٨ ـ هل سبق للمعاق أن تلقى علاجاً لإعاقته: نعم ☐[1] ، لا ☐[2] .

49 * ٦٩ ـ (إذا نعم) : أ ـ نوع العلاج: علاج طبي ☐[1] ، علاج فيزيائي ☐[2] ، جراحة ☐[4] ، تركيب أطراف إصطناعية (لحالات البتر) ☐[8]
تركيب أجهزة طبية ☐[16]

51 * ب ـ نوع المؤسسة التي عالجته : عامة ☐[1] ، خاصةأو دولية ☐[2] ، خاصة متعاقدة مع مؤسسة رسمية ☐[4] ،
عيادة خاصة ☐[8] ، خارج لبنان ☐[16]

53 * ج ـ بمساعدة من: مصلحة الإنعاش الإجتماعي ☐[1] ، وزارة الصحة ☐[2] ، مؤسسة خاصة محلية أو دولية ☐[4] ،
مؤسسة خاصة متعاقدة مع مؤسسة رسمية ☐[8] على حسابه الخاص أو حساب أسرته ☐[16] ،
غير ذلك، أذكر: _____

54 ٧٠ ـ هل يتمنى المعاق أن يعيش في مؤسسة خاصة بالمعاقين: نعم ☐[1] ، لا ☐[2]

معلومات حول تدريب المعاق وتعليمه ووضعه المهني

55 ٧١ هل سبق للمعاق أن تلقى تأهيلاً أو تدريباً خاصاً يتعلق بإعاقته: نعم ☐[1] ، لا ☐[2]

٧٢ ـ (إذا نعم): أ ـ نوع التأهيل أو التدريب: _____

61 * ب ـ نوع المؤسسة التي تم فيها: عامة ☐[1] ، خاصة أو دَوْلية ☐[2] ، خاصة متعاقدة مع مؤسسة رسمية ☐[4] ،
عيادة خاصة ☐[8] ، خارج لبنان ☐[16]

62 ٧٣ ـ هل سبق للمعاق أن دخل مدرسة أو معهدا للتعليم: نعم ☐[1] ، لا ☐[2] .

63 ٧٤ ـ (إذا نعم): أ ـ المرحلة التي وصل إليها: دون الإبتدائي ☐[1] ، ابتدائي ☐[2] ، متوسط ☐[3] ، ثانوي ☐[4] ،
جامعي ☐[5] ، فوق الجامعي ☐[6] ،

64 * ب ـ نوع التعليم: عام ☐[1] ، مهني ☐[2] ، جامعي ☐[4]

66 ج ـ (إذا مهني أو جامعي)، أذكر الفرع أو الإختصاص: _____

67 * ٧٥ ـ هل يتابع المعاق حالياً: تدريباً أو تأهيلاً خاصاً ☐[1] ، يتابع تعليمه ☐[2] ، لا يتابع ☐[4] .

69 ٧٦ ـ مهنة المعاق الرئيسية بالتحديد (إذا وجدت) _____

70 ٧٧ ـ هل يعمل المعاق حاليا نعم ☐[1] ، لا ☐[2] .

71 * ٧٨ ـ (إذا نعم) في مؤسسة رسمية ☐[1] ، في مؤسسة خاصة ☐[2] ، على حسابه (مستقل) ☐[4] .

[Causes of disability]

79. How old was the disabled person at onset of disability: _____

80. Did the disability occur due to illness of disabled person: Yes [ ] No [ ]

81. (If yes), specify illness: _____

82. Did the disability occur due to accident to disabled person: Yes [ ] No [ ]

83. (If yes), A. Due to recent events in Lebanon [ ]
Due to another accident [ ]

B. Specify nature of accident: _____

84. Is there among the relatives of the disabled person any physically disabled?
[ ] Yes [ ] No

85. (If yes), A. How many? _____
B. Type of disability: Deaf [ ] Mute [ ] Blind [ ]
Paralyzed [ ] Other (specify) [ ]
C. Degree of relationship to disabled:
Father [ ] Mother [ ] Brother or sister [ ]
Uncle or aunt (paternal) [ ]
Male or female cousin (maternal) [ ] Grandfather or grandmother (paternal) [ ] Grandfather or grandmother (maternal) [ ]
Other relative [ ]

86. Is there among the relatives of the disabled person any mentally disabled or mentally ill? [ ] Yes [ ] No

87. (If yes), A. How many? _____
B. Degree of relationship to disabled:
Father [ ] Mother [ ] Brother or sister [ ]
Uncle or aunt (maternal) [ ] Uncle or aunt (paternal)
Other relative [ ]

88. Was the pregnancy period: Normal (9 months) [ ]
Long (more than 9 months) [ ]
Short (8 months) [ ]
Seven months [ ]
Six months [ ]

89. Did the mother have bleeding during pregnancy? Yes [ ] No [ ]

90. Place of birth of disabled: [ ] Home [ ] Hospital [ ] Medical Center

91. Condition of disabled at birth: [ ] Immediate screaming
[ ] Exposed to asphyxiation

92. Did the mother have any accident during pregnancy? Yes [ ] No [ ]

93. (If yes), specify nature of accident: _____

٧

أسباب الإعاقة

٧٩ ـ كم كان عمر المعاق عندما ظهرت إعاقته: _____

٨٠ ـ هل حصلت الإعاقة بسبب مرض المعاق: نعم ☐[1]، لا ☐[2]

٨١ ـ (إذا نعم)، أذكر اسم المرض: _____

٨٢ ـ هل حصلت الإعاقة بسبب حادث للمعاق: نعم ☐[1]، لا ☐[2]

٨٣ ـ (إذا نعم): أ ـ بسبب الأحداث الأخيرة في لبنان ☐[1]، بسبب حادث آخر ☐[2]،

ب ـ أذكر بإيجاز ما هو الحادث: _____

_____

٨٤ ـ هل يوجد في عائلة أو أقارب المعاق من يعاني من إعاقة جسدية: نعم ☐[1]، لا ☐[2]

٨٥ ـ (إذا نعم): أ ـ عددهم: _____

* ب ـ أنواع إعاقاتهم: صمم ☐[1]، بكم ☐[2]، عمى ☐[4]، شلل ☐[8]، غيره أذكر: _____

* ج ـ صلة قرابة الشخص (أو الأشخاص) بالمعاق صاحب الاستمارة:

أب ☐[1]، أم ☐[2]، أخ أو أخت ☐[3]، عم أو عمة ☐[4]، خال أو خالة ☐[5]، ابن أو ابنة عم (ة) ☐[6]،

ابن أو ابنة خال (ة) ☐[7]، جد أو جدة لجهة الأب ☐[8]، جد أو جدة لجهة الأم ☐[9]، أقارب غيره ☐[0]

٨٦ ـ هل يوجد في عائلة أو أقارب المعاق من يعاني من إعاقة عقلية أو مرض عقلي: نعم ☐[1]، لا ☐[2]

٨٧ ـ (إذا نعم: أ ـ عددهم: _____

* ب ـ صلة قرابة الشخص (أو الأشخاص) بالمعاق صاحب الإستمارة:

أب ☐[1]، أم ☐[2]، أخ أو أخت ☐[3]، عم أو عمة ☐[4]، خال أو خالة ☐[5]، ابن أو ابنة عم (ة) ☐[6]،

ابن أو ابنة خال (ة) ☐[7]، جد أو جدة لجهة الأب ☐[8]، جد أو جدة لجهة الأم ☐[9]، أقارب غيره ☐[0]

٨٨ ـ هل كانت فترة الحمل بالمعاق: عادية (٩ أشهر) ☐[1]، طويلة (أكثر من ٩ أشهر) ☐[2]، أم نافصة (٨ أشهر) ☐[3]، (٧ أشهر) ☐[4]، (٦ أشهر) ☐[5]،

٨٩ ـ هل حدث للأم نزيف خلال الحمل بالمعاق: نعم ☐[1]، لا ☐[2]

٩٠ ـ مكان ولادة المعاق: المنزل ☐[1]، مستشفى ☐[2]، مركز طبي ☐[3]

٩١ ـ حالة الطفل المعاق عند الولادة: صرخ فورا ☐[1]، تعرض للإختناق (لم يصرخ وازرق لونه) ☐[2]،

٩٢ ـ هل تعرضت الأم لحادث خلال الحمل بالمعاق: نعم ☐[1]، لا ☐[2]،

٩٣ ـ (إذا نعم)، أذكر ما هو الحادث: _____

94. Was the mother exposed to any illness during pregnancy? Yes [ ] No [ ]

95. (If yes), state the names of these illnesses (if possible) and periods:

	Name of illness	Period	
a.	_____	[ ] First half of pregnancy	[ ] Second half of pregnancy
b.	_____	[ ] First half of pregnancy	[ ] Second half of pregnancy
c.	_____	[ ] First half of pregnancy	[ ] Second half of pregnancy

96. Number of mother's abortions: _____

97. Was the disabled born with a physical deformity: Yes [ ] No [ ]

98. (If yes), A. Did the mother take any medication during pregnancy?
Yes [ ] No [ ]
B. Did she take medication as prescribed by physician?
Yes [ ] No [ ]
C. State names of medication taken by mother during pregnancy.
_____

99. Does the family consider the disabled as a burden? Yes [ ] No [ ]

100. Does the family wish the disabled to live in a specialized institution for the disabled? Yes [ ] No [ ]

Fieldworker's notes: _____

٩٤ ـ هل تعرضت الأم لأمراض خلال الحمل بالمعاق: نعم ☐[1] ، لا ☐[2]

* ٩٥ ـ (إذا نعم)، أذكر أسماء أهم الأمراض (إذا أمكن) وفترات الإصابة بها:

	إسم المرض	فترة الإصابة بالمرض
أ ـ	_____	في النصف الأول من فترة الحمل ☐[1] ، في النصف الثاني من فترة الحمل ☐[2]
ب ـ	_____	في النصف الأول من فترة الحمل ☐[1] ، في النصف الثاني من فترة الحمل ☐[2]
ج ـ	_____	في النصف الأول من فترة الحمل ☐[1] ، في النصف الثاني من فترة الحمل ☐[2]

٩٦ ـ عدد الإجهاضات التي حدثت للأم: _____

٩٧ ـ هل ولد المعاق مشوهاً جسدياً: نعم ☐[1] ، لا ☐[2]

٩٨ ـ (إذا نعم): أ ـ هل تناولت الأم أدوية خلال فترة الحمل بالمعاق: نعم ☐[1] ، لا ☐[2]

ب ـ هل أخذت هذه الأدوية بناء على استشارة طبيب: نعم ☐[1] ، لا ☐[2]

ج ـ أذكر أسماء الأدوية التي تناولتها الأم خلال فترة الحمل (إذا وجدت، وإذا أمكن): _____

_____

٩٩ ـ هل تشعر الأسرة بأن المعاق يشكل عبئاً عليها: نعم ☐[1] ، لا ☐[2]

١٠٠ ـ هل تتمنى الأسرة أن يعيش المعاق في مؤسسة خاصة للمعاقين: نعم ☐[1] ، لا ☐[2]

_____

ملاحظات المحقق (إذا وجدت):

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANNEX IV

ILLUSTRATIVE TABLES FROM CENSUS AND SURVEY DATA ON DISABLED PERSONS

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Table IV.1. Number of impaired persons, by type of impairment; urban/rural Egypt, 1960 and 1976

Type of impairment	Urban		Rural		Total	
	1960	1976	1960	1976	1960	1976
Sensory						
Blind	23 255	11 042	69 103	21 331	92 358	32 373
Loss of sight in an eye	33 214	8 201	98 920	10 515	132 134	18 706
Deaf and mute	5 072	8 029	11 955	4 317	17 027	12 436
Deaf	---	2 874	---	2 210	---	5 084
Mute	---	1 289	---	2 042	---	3 331
(Deaf and mute, and deaf)a/		(10 903)		(6 527)		(17 430)
Physical						
Amputation of:						
One or both hands	2 174	2 039	4 385	4 701	6 559	6 740
One or both legs	3 052	2 621	5 069	3 073	8 121	5 694
Mental						
Mental retardation	---	5 270	---	2 403	---	7 673
Other	---	10 140	---	9 227	---	19 367
Total	66 767	51 505	189 432	59 819	256 199	111 324

a/ The numbers of deaf and mute and deaf alone were combined in order to estimate the total numbers who reported that they were deaf.

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 9, pp. 35-36; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 35, pp. 461-469.

Table IV.2. Number of impaired persons per 100,000 population, by type of impairment: urban/rural Egypt, 1960 and 1976

Type of impairment	Urban		Rural		Total	
	1960	1976	1960	1976	1960	1976
Sensory						
Blind	236	69	429	104	355	88
Loss of sight in an eye	337	51	614	51	509	51
Deaf and mute	51	50	74	21	66	34
Deaf	---	18	---	11	---	14
Mute	---	8	---	10	---	9
Physical						
Amputation of:						
One or both hands	22	13	27	23	25	18
One or both legs	31	16	31	15	31	16
Mental						
Mental retardation	---	33	---	12	---	21
Other	---	63	---	45	---	53
Total	677	321	1 175	291	986	304

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 9, pp. 35-36; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 35, pp. 461-469.

Table IV.3. Number of impaired persons per 100,000 population, by type of impairment and sex; urban/rural Egypt, 1960 and 1976

Type of impairment	1960						1976					
	Urban		Rural		Total		Urban		Rural		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
Sensory												
Blind	251	220	392	465	338	373	84	53	124	83	106	70
Loss of sight in an eye	351	322	763	492	588	428	75	26	80	22	78	23
Deaf and mute	59	44	90	58	78	53	68	32	30	12	46	20
Deaf	---	---	---	---	---	---	26	9	16	6	20	7
Mute	---	---	---	---	---	---	11	5	15	5	13	5
Physical												
Amputation of:												
one or both hands	36	7	44	11	41	9	22	3	42	3	33	3
one or both legs	52	9	48	15	50	13	29	3	26	4	27	3
Mental												
Mental retardation	---	---	---	---	---	---	51	14	16	7	32	10
Other	---	---	---	---	---	---	105	20	76	13	88	16
Total	749	602	1 311	1 040	1 095	876	471	164	424	154	445	158

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 9, pp. 35-36; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 35, pp. 461-469.

Table IV.4. Blindness per 100,000 population, by age and sex; Egypt, 1960 and 1976

Age (in years)	1960			1976		
	Males	Females	Both sexes	Males	Females	Both sexes
Under 1	5	4	5			
1-4	15	11	13			
<5				3	2	2
5-9	31	26	29	80	52	66
10-14	68	53	61	104	57	82
15-19	141	141	141	70	46	59
20-24	198	164	182	60	35	48
25-29	202	150	173	50	21	36
30-34	225	197	210	68	35	51
35-39	260	231	245	83	35	59
40-44	378	427	402	114	58	86
45-49	512	484	498	123	59	92
50-54	776	916	847	175	110	142
55-59	990	994	992	237	129	187
60-64	1 648	1 916	1 789	345	253	298
65-69	2 243	2 303	2 274	479	346	416
70+	2 500	4 657	4 616	820	718	765
All ages	338	373	355	106	70	88

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 21, pp. 65-66; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 36, p. 471.

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Table IV.5. Number of persons who have lost sight in an eye per 100,000 population, by age and sex; Egypt, 1960 and 1976

Age (in years)	1960			1976		
	Males	Females	Both sexes	Males	Females	Both sexes
Under 1	10	1	9			
1-4	42	33	38			
Under 5				1	9	1
5-9	103	76	90	9	5	7
10-14	196	127	163	21	10	15
15-19	407	281	346	48	18	34
20-24	622	358	494	82	24	52
25-29	730	443	572	94	23	58
30-34	817	522	676	122	27	73
35-39	958	623	787	150	30	80
40-44	1 062	806	939	163	38	100
45-49	1 217	873	1 044	173	39	108
50-54	1 344	1 038	1 189	196	49	121
55-59	1 556	1 128	1 345	214	59	142
60-64	1 683	1 305	1 485	198	70	134
65-69	1 878	1 440	1 655	188	84	139
70+	2 150	1 524	1 803	166	92	126
All ages	588	428	509	78	23	51

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 21, pp. 65-66; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 36, p. 471.

Table IV.6. Number of deaf and mute persons per 100,000 population, by age and sex; Egypt, 1960 and 1976

Age (in years)	1960			1976		
	Male	Female	Both sexes	Male	Female	Both sexes
under 1	3	2	2			
1-4	23	14	18			
under 5				7	5	6
5-9	73	46	60	32	20	27
10-14	86	60	74	41	29	36
15-19	95	77	86	46	30	39
20-24	103	69	88	51	23	37
25-29	104	60	80	54	20	37
30-34	96	56	76	76	22	48
35-39	88	54	71	77	21	49
40-44	83	54	69	71	18	44
45-49	84	55	69	66	17	42
50-54	81	64	73	64	16	39
55-59	89	55	72	67	19	45
60-64	82	66	74	50	17	34
65-69	126	62	94	42	31	37
70+	132	116	123	49	26	36
All ages	78	53	66	46	20	34

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 21, pp. 65-66; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 36, p. 471.

Table IV.7. Number of deaf and mute persons per 100,000 population, by age and sex; Egypt, 1976

Age (in years)	Deaf			Mute			Deaf and mute			Total		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
<5	1	1	1	1	1	1	7	5	6	9	7	8
5-9	6	7	7	11	5	1	32	20	27	49	32	35
10-14	12	9	11	17	6	12	41	29	36	70	44	59
15-19	12	7	10	20	8	14	46	30	39	78	45	63
20-24	21	4	12	19	6	12	51	23	37	91	33	61
25-29	23	4	13	17	7	12	54	20	37	94	31	62
30-34	32	4	18	16	5	11	76	22	48	124	31	77
35-39	32	5	18	13	6	9	77	21	49	122	32	76
40-44	34	7	20	16	4	10	71	18	44	121	29	74
45-49	37	8	23	14	2	8	66	17	42	117	27	73
50-54	40	10	25	9	3	6	64	16	39	113	29	70
55-59	45	12	30	10	2	6	67	19	45	122	33	81
60-64	47	17	32	10	4	7	50	17	34	107	38	73
65-69	56	23	40	9	4	6	42	31	37	107	58	83
70+	69	46	57	10	6	8	49	26	36	128	78	101

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 36, p. 471.

Table IV.8. Number of persons who lost a limb per 100,000 population, by type of limb lost, age and sex; Egypt, 1960 and 1976

Age (in years)	1960						1976					
	One or both arms			One or both legs			One or both arms			One or both legs		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
<1	0	0	0	1	0	1						
1-4	2	1	2	4	2	3	0	0	0	1	0	0
5-9	7	4	5	10	5	8	3	2	2	4	2	3
10-14	17	5	12	24	8	16	8	3	5	11	3	7
15-19	30	12	21	41	12	27	12	3	8	23	3	14
20-24	43	12	28	52	13	33	28	3	15	35	3	19
25-29	52	11	30	62	13	35	49	2	25	44	3	23
30-34	55	10	32	72	15	43	63	3	32	47	3	24
35-39	69	14	41	81	14	47	71	4	37	40	4	22
40-44	83	15	52	81	21	52	79	4	41	46	4	25
45-49	82	13	47	88	21	54	83	5	45	50	4	28
50-54	94	16	55	110	27	68	81	4	42	59	6	32
55-59	110	15	63	116	24	70	86	5	49	61	7	36
60-64	109	23	64	133	28	78	89	7	48	60	9	34
65-69	129	19	73	162	25	92	72	6	41	58	7	34
70+	118	22	65	177	45	104	55	7	29	55	14	33

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 21, pp. 65-66; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 36, p. 471.

Table IV.9. Number of intellectually impaired persons per 100,000 population, by age and sex; Egypt, 1976

Age (in years)	Male	Female	Both sexes
Under 5 years	2	0	1
5-9	18	8	13
10-14	35	14	25
15-19	35	14	25
20-24	41	13	27
25-29	47	10	28
30-34	48	12	30
35-39	51	8	30
40-44	43	12	28
45-49	40	10	25
50-54	32	11	22
55-59	25	11	18
60-64	20	8	14
65-69	23	11	18
70+	27	14	20

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 36, p. 471.

Table IV.10. Percentage distribution of impaired persons 10 years old and over, by educational attainment and sex; Egypt, 1960

Educational attainment	Sensory						Physical			
	Blind		Loss of sight in an eye		Deaf and without speech		Loss of one or both arms		Loss of one or both legs	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total number	43 284	47 501	74 017	53 342	8 364	5 552	5 189	1 105	6 240	1 482
Illiterate	96.3	98.7	74.0	96.5	97.3	98.5	68.4	93.0	65.5	93.5
Reads only	0.0	0.0	1.2	0.2	0.0	0.0	1.8	0.3	1.2	0.3
Reads and writes	0.0	0.0	22.7	2.7	0.0	0.0	26.4	4.4	29.1	4.5
Certificate below intermediate	0.8	0.0	0.8	0.1	0.3	0.0	1.2	0.5	1.4	0.4
Intermediate certificate	0.8	0.0	0.8	0.1	0.4	0.2	1.5	0.7	1.9	0.7
Diploma below university	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0
University (first degree)	0.4	0.0	0.1	0.0	0.1	0.1	0.4	0.1	0.3	0.0
Post-graduate diploma	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Master's degree	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doctorate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not stated	1.4	1.2	0.2	0.4	1.9	1.1	0.3	1.0	0.4	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 50, p. 309.

Table IV.11. Percentage distribution of impaired males 10 years old and over, by educational attainment; Egypt, 1976

Educational attainment	Sensory					Physical		Mental	Other
	Blind	Loss of sight in an eye	Deaf and mute	Deaf	Mute	Upper limb loss	Lower limb loss	Mentally retarded	
Total number	17 751	14 240	7 631	3 581	2 158	6 127	4 980	5 271	15 944
Illiterate	43.9	52.1	48.2	56.4	71.5	46.6	48.2	79.9	52.8
Read and write	14.2	26.8	20.6	25.7	1.3	27.4	30.5	4.9	24.7
Primary	8.6	5.6	10.0	6.4	4.4	6.8	7.5	1.4	5.9
Below intermediate	4.9	4.1	4.2	2.1	4.1	2.9	5.4	0.8	4.1
Intermediate	4.4	6.9	7.8	5.2	2.9	7.8	5.6	1.3	6.6
Diploma (below university)	0.1	0.2	0.4	0.1	0.2	0.2	0.4	0.1	0.3
University (first degree)	2.1	3.4	7.1	3.1	1.7	7.9	1.7	0.2	4.3
Postgraduate diploma	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1
Master's degree	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Doctorate	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Unknown	21.3	0.6	1.1	0.8	1.4	0.3	0.6	11.4	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 38, p. 475.

Table IV.12. Percentage distribution of impaired females 10 years old and over, by educational attainment; Egypt, 1976

Educational attainment	Sensory					Physical		Mental	Other
	Blind	Loss of sight in an eye	Deaf and mute	Deaf	Mute	Upper limb loss	Lower limb loss	Mentally retarded	
Total number	11 270	4 047	3 069	1 147	731	468	543	1 583	2 672
Illiterate	76.4	73.3	56.7	69.9	74.7	57.9	80.8	89.3	59.8
Read and write	8.7	5.7	14.7	16.1	7.7	11.3	7.0	2.5	11.1
Primary	5.0	3.5	12.6	5.3	3.7	7.9	5.3	0.7	4.6
Below intermediate	3.6	4.7	5.1	2.3	4.1	6.0	2.6	0.6	4.8
Intermediate	4.2	8.5	6.6	4.3	5.9	8.3	2.6	0.4	8.4
Diploma (below university)	0.2	0.6	0.4	0.1	0.8	1.3	0.0	0.1	0.6
University (first degree)	0.4	2.9	2.5	1.5	2.1	6.4	0.6	0.1	3.6
Postgraduate diploma	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Master's degree	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Doctorate	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0
Unknown	1.5	0.8	1.2	0.5	1.0	0.6	1.1	6.3	7.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 38, p. 475.

Table IV.13. Percentage distribution of impaired persons 15 years old and over, by occupation, type of impairment and sex; Egypt, 1960

Occupation	Males					Females				
				Loss of					Loss of	
	Blind	Loss of sight in an eye	Deaf and mute	One or both arms	One or both legs	Blind	Loss of sight in an eye	Deaf and mute	One or both arms	One or both legs
Total number	42 161	70 774	6 946	4 905	2 877	46 689	51 407	4 829	1 023	1 307
Professional, technical and related workers	0.9	0.4	0.0	0.3	0.3	0.1	0.0	0.0	0.2	0.1
Administrative, executive and managerial workers	0.0	0.2	0.1	0.5	0.3	0.0	0.0	0.0	0.0	0.0
Clerical workers	0.0	0.9	0.3	1.8	1.8	0.0	0.0	0.0	0.1	0.1
Sales workers	1.8	8.6	2.5	12.0	10.4	0.1	1.1	0.2	0.9	1.0
Service workers	14.5	6.3	3.4	5.5	5.6	1.1	1.5	2.9	1.0	0.5
Agricultural, fishing and hunting and related work	6.3	61.1	50.0	28.7	18.3	0.2	2.3	2.4	1.5	1.0
Miners, quarry and related work	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Transportation and communication										
Crafts, production process and labourers not elsewhere classified	0.0	1.1	0.6	1.7	1.1	0.0	0.0	0.0	0.0	0.0
Unclassified	0.5	1.0	1.1	2.0	1.8	0.1	0.5	0.4	0.3	0.4
Without an occupation	74.8	10.1	30.1	40.3	49.2	98.3	93.8	93.4	95.6	95.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 46, p. 301.

Table IV.14. Percentage distribution of impaired males 15 years old and over, by occupation, and type of impairment; Egypt, 1976

Occupation	Sensory					Physical		Mental	Other
	Blind	Loss of sight in an eye	Deaf and mute	Deaf	Mute	Upper limb loss	Lower limb loss	Mentally retarded	
Total number	15 052	13 707	6 565	3 272	1 729	5 933	4 700	4 358	14 175
Professional, technical and related work	17.4	6.0	7.5	4.4	2.8	9.4	4.1	0.1	6.9
Administrative and managerial work	0.0	0.7	1.4	1.0	0.6	4.9	0.4	0.0	1.0
Clerical and related work	0.0	4.2	10.6	4.2	1.8	3.9	5.7	0.1	5.7
Sales	3.1	7.9	4.6	6.4	3.1	7.0	9.5	0.0	6.0
Service	0.0	8.0	7.4	11.0	4.2	9.5	9.6	0.0	9.7
Agriculture, animal husbandry, fishing	9.2	38.7	23.9	30.2	40.3	31.2	14.9	0.0	21.4
Production and related work, operators and labourers	0.0	18.8	22.6	23.4	17.9	16.6	18.2	0.1	23.8
Unclassified workers	1.7	2.0	4.5	2.7	5.8	3.0	4.5	0.1	7.5
Without an occupation	68.5	13.8	17.5	16.7	23.4	15.6	33.1	99.5	18.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 39, p. 477.

Table IV.15. Percentage distribution of impaired females 15 years old and over, by occupation and type of impairment; Egypt, 1976

Occupation	Sensory					Physical		Mental	Other
	Blind	Loss of sight in an eye	Deaf and mute	Deaf	Mute	Upper limb loss	Lower limb loss	Mentally retarded	
Total number	9 946	3 823	2 391	934	580	405	477	1 262	2 269
Professional, technical and related work	1.4	4.5	2.7	2.5	5.3	8.6	1.0	0.0	7.7
Administrative and managerial	0.0	0.2	0.3	0.2	1.0	1.7	0.0	0.0	6.6
Clerical and related work	0.0	4.0	12.6	1.3	2.9	4.4	1.5	0.0	5.5
Sales	0.2	2.0	0.3	1.2	0.3	3.2	2.1	0.0	2.3
Service	0.0	3.1	2.6	3.0	1.2	3.7	0.4	0.0	6.1
Agriculture, animal husbandry, fishing and hunting	0.2	2.4	1.6	1.8	2.4	5.2	0.4	0.0	2.6
Production and related work, operators and labourers	0.0	1.9	2.7	2.0	4.0	2.2	4.2	0.0	5.7
Unclassified workers	0.2	1.3	1.4	1.0	1.6	0.5	0.4	0.0	12.1
Without an occupation	98.1	80.6	75.8	87.0	80.9	70.4	89.9	100.0	57.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 39, p. 477.

Table IV.16. Percentage distribution of the impaired population 6 years old and over, by employment status and sex; Egypt, 1960

Employment status	Sensory						Physical			
	Blind		Loss of sight in an eye		Deaf and mute		Loss of one or both arms		Loss of one or both legs	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total number	43 829	47 903	75 808	54 563	9 608	6 481	5 310	1 167	6 408	1 560
Employer	2.4	0.1	9.3	0.3	3.9	0.1	7.5	0.2	5.3	0.1
Self-employed	12.0	0.8	29.5	1.5	13.2	0.4	21.8	0.9	19.6	1.5
Paid employee	8.5	0.6	36.5	3.1	22.5	3.5	20.0	2.6	16.8	1.4
Unpaid family worker	0.7	0.1	9.2	1.0	13.8	1.4	4.4	0.6	2.8	0.5
Other unpaid worker	0.0	0.0	0.2	0.0	0.4	0.1	0.1	0.0	0.5	0.1
Unemployed	0.6	0.1	1.3	0.5	1.0	0.3	2.5	0.3	2.3	0.4
Unable to work	51.5	44.4	5.3	10.4	10.9	11.1	23.0	19.5	29.5	24.3
Not seeking work	23.9	53.7	8.3	82.0	32.9	81.9	20.4	75.2	23.0	71.0
Unknown	0.3	0.2	0.4	1.2	1.5	1.2	0.3	0.9	0.9	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 45, p. 300.

Table IV.17. Percentage distribution of impaired males 6 years old and over, by employment status; Egypt, 1976

Employment status	Sensory					Physical		Mental	Other
	Blind	Loss of sight in an eye	Deaf and mute	Deaf	Mute	Upper limb loss	Lower limb loss	Mentally retarded	
Total number	19 656	14 435	18 591	3 725	2 389	6 190	5 057	5 679	16 231
Employer	3.3	9.1	7.1	6.5	3.6	11.8	4.6	0.0	2.9
Self-employed	8.8	22.1	17.6	16.2	11.3	19.5	16.5	0.0	9.6
Paid employee	10.8	49.3	41.4	47.2	39.3	45.0	37.9	0.2	55.7
Unpaid family worker	0.8	0.9	0.7	2.1	6.1	0.5	0.5	0.5	3.3
Other unpaid worker	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unemployed	2.7	0.9	0.9	1.9	6.1	1.6	3.7	0.5	3.9
Unable to work	26.2	4.0	15.4	8.0	17.9	10.8	23.9	93.5	12.1
Students	27.6	8.7	9.5	8.3	13.5	4.2	7.3	2.0	7.7
Aged persons	19.6	3.7	6.0	6.4	1.6	3.0	5.0	2.9	2.1
Unknown	0.2	1.3	1.3	3.4	0.6	3.8	0.6	0.4	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 45, p. 300.

Table IV.18. Percentage distribution of impaired females 6 years old and over, by employment status; Egypt, 1976

Employment status	Sensory					Physical		Mental	Other
	Blind	Loss of sight in an eye	Deaf and mute	Deaf	Mute	Loss of one or both arms	Loss of one or both legs	Mentally retarded	
Total number	12 422	4 156	3 464	1 299	837	512	581	1 747	2 809
Employer	0.1	0.4	0.1	0.5	0.5	1.4	0.0	0.0	0.4
Self-employed	0.2	2.1	0.6	1.1	0.6	2.9	3.4	0.0	4.7
Paid employee	1.1	14.3	13.3	7.3	11.8	17.1	4.8	0.1	29.3
Unpaid family worker	0.1	0.1	0.1	0.0	0.5	0.4	0.3	0.2	1.2
Unemployed	1.5	0.7	2.4	1.0	1.7	0.6	0.5	0.6	1.1
Unable to work	41.9	55.0	52.5	44.0	67.0	12.0	66.8	91.4	39.8
Students	23.5	12.1	22.3	26.4	13.3	25.0	10.8	2.7	12.6
Aged persons	31.6	14.0	4.9	19.3	4.3	8.6	13.1	5.0	9.5
Unknown	0.0	1.2	3.7	0.4	0.4	2.0	0.2	0.0	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and English), table 45, p. 300.

Table IV.19. Percentage distribution of impaired persons by governorate, region, and type of impairment: Egypt, 1960 and 1976

Region and governorate	Sensory						Mental	Total population of Egypt	
	Blind		Loss of sight in an eye		Deaf and without speech		Mentally retarded		
	1960	1976	1960	1976	1960	1976	1976	1960	1976
Urban									
Cairo	7.3	9.1	7.1	17.8	9.1	35.0	28.4	12.9	13.9
Alexandria	2.7	3.9	2.7	4.8	4.6	8.4	6.8	5.8	6.3
Port-Said	0.5	0.5	0.4	0.5	1.1	0.7	1.2	0.9	0.7
Suez	0.3	0.4	0.4	0.7	0.3	0.4	0.6	0.8	0.5
Subtotal	10.8	13.9	10.6	23.8	15.1	44.5	37.0	20.4	21.4
Lower Egypt									
Damietta	0.8	1.4	0.8	0.9	1.0	0.8	1.1	1.5	1.6
Dakahlia	6.0	7.8	5.4	5.6	8.2	6.4	6.0	7.8	7.5
Sharkia	7.3	7.8	7.4	7.2	8.3	5.1	4.0	7.0	7.1
Kalyubia	3.3	3.4	3.1	3.3	4.7	2.2	16.1	3.9	4.6
Kafr el-Sheikh	3.6	3.9	3.7	3.2	4.0	1.8	1.5	3.7	3.8
Gharbia	5.7	6.5	5.5	5.0	6.5	4.4	5.1	6.4	6.3
Menoufia	5.3	6.2	5.3	5.6	6.2	3.7	4.7	5.2	4.7
Behera	6.3	6.3	6.5	7.7	5.5	3.4	3.9	6.5	6.7
Ismailia	0.7	0.7	0.9	0.6	0.8	0.5	0.1	1.1	1.0
Subtotal	39.0	44.0	38.6	39.1	45.2	28.3	42.5	43.1	43.3
Upper Egypt									
Giza	4.8	5.3	5.0	7.7	4.6	5.7	0.1	5.1	6.6
Beni-Suef	4.8	5.4	6.1	5.5	4.5	2.9	4.4	3.3	3.0
Fayoum	6.3	5.8	6.1	4.9	3.7	2.5	1.9	3.2	3.1
Minya	9.3	4.6	11.7	3.8	6.9	3.0	2.5	6.0	5.6
Assyiut	6.7	5.7	7.4	5.6	5.9	4.8	1.1	5.1	4.6
Souhag	7.7	4.5	7.3	3.1	6.9	3.0	3.4	6.1	5.3
Kena	7.5	6.9	5.0	3.9	5.4	3.6	1.4	5.2	4.7
Asswan	2.2	3.1	1.4	2.0	1.4	1.4	4.0	1.5	1.7
Subtotal	49.3	41.3	50.0	36.5	39.3	26.9	18.8	35.5	34.6
Frontier									
Red Sea	0.0	0.1	0.0	0.1	0.0	0.1	1.4		0.2
Wadi el-Gedid	0.3	0.4	0.2	0.2	0.2	0.1	0.2		0.2
Matrouh	0.3	0.2	0.2	0.3	0.1	0.3	0.1		0.3
Sinai	0.1	0.0	0.1	0.0	0.1	0.0	0.0		0.0
Subtotal	0.7	0.7	0.5	0.6	0.4	0.5	1.7	1.2	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number	92 358	32 373	132 134	18 716	17 027	12 346	7 673	25 984 101	36 626 204

Source: Egypt, Department of Statistics and Census, 1960 Census of Population, vol. 2. General Tables (Cairo, SOP Press, 1963) (in Arabic), table 9, pp. 35-36; Egypt, Central Agency for Public Mobilization and Statistics, Population and Housing Census, 1976, vol. 1. Total Republic (Cairo, 1980), No.93-15111 (in Arabic and

Table IV.20. Percentage distribution of impaired persons, by age group and type of impairment; Egypt, 1978/79

Age	Sensory			Physical				Mental
	Vision	Hearing	Loss of speech	Spinal	Upper limb	Lower limb	Debility	
<15	5.4	17.0	35.6	14.3	17.2	29.1	12.8	29.1
15-24	6.7	15.1	25.2	21.4	16.7	12.8	23.1	26.4
25-34	8.7	9.4	14.1	7.1	10.9	8.7	2.6	14.5
35-44	13.6	10.7	9.6	3.6	8.1	5.0	7.7	11.8
45-54	14.8	11.3	5.9	7.1	16.6	10.9	7.7	4.5
55-64	18.8	13.2	2.2	17.9	16.3	14.6	7.7	4.5
65+	32.0	23.3	7.4	28.6	17.2	18.9	38.5	8.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of impairments in sampled population a/	447	159	135	281	221	460	39	110

a/ Respondents to the survey may report more than one impairment.

Source: Egypt, Ministry of Health, Health Interview Survey: Results of the First Cycle, Health Profile of Egypt, publication No. 16 (Cairo, 1982), table 8-3, pp. 177-178.

Table IV.21. Number and rate per 100,000 of impairments in sample population of 79,539 persons; Egypt, 1978/79

Type of impairment	Number	Rate per 100,000
Vision	449	565
Partial loss	271	341
Total loss	178	224
Hearing	158	199
Partial loss	79	99
Total loss	79	99
Loss of speech	135	170
Partial loss	56	70
Total loss (mute)	79	99
Upper limbs	223	280
Right side	116	146
Left side	107	135
Lower limbs	470	591
Right side	248	312
Left side	222	279
Spinal	28	35
Mental	110	138
Debility	40	50
Total impairments	1 613	---
Total impaired persons in sample population a/	1 116	1 403

a/ Respondents to the survey may report more than one impairment.

Source: Egypt, Ministry of Health, Health Interview Survey: Results of the First Cycle, Health Profile of Egypt.

Table IV.22. Number of impaired persons, by type of impairment and sex; Iraq, 1957

Type of impairment	Males	Females	Both sexes
Blind and other impairment a/	19 949	27 665	47 614
One-eyed and other impairment	39 812	20 217	60 029
Deaf	9 938	4 492	14 430
Paralysis	4 602	2 813	7 415
Crippled and other deformity b/	478	368	846
Hunchbacked	1 262	626	1 888
Loss of either hand	6 579	1 522	8 101
Lame	17 945	7 222	25 167
Mentally retarded	5 499	1 952	7 451
Blind and other impairment and deformity	562	403	965
One-eyed and other impairment and deformity	802	280	1 082
Other impairments and deformities	666	255	921
Total	108 094	67 815	175 909

a/ Impairment refers to blind, one-eyed, deaf and mentally retarded.
b/ Deformity refers to crippled, paralysis, hunched back, loss of either hand, or lame.

Source: Iraq, Ministry of the Interior, General Directorate of Censuses, Abstract of the General Census of 1957 (Baghdad, n.d.) (in Arabic), table 31.

Table IV.23. Number of impaired persons per 100,000 population, by sex and type of impairment; Iraq, 1957

Type of impairment	Male	Female	Total
Sensory and mental			
Blind and deaf and/or retarded	626	877	751
One-eyed and deaf and/or retarded	1 250	641	947
Deaf	312	142	228
Mentally retarded	173	62	118
Physical			
Paralysis	144	89	117
Crippled and other deformity and/or amputation	15	12	13
Hunchbacked and other deformity and/or amputation	40	20	30
Loss of either arm or hand	207	48	128
Lame	563	229	397
Combinations of sensory and mental and physical			
Blind and deaf and/or retarded and other physical impairment	18	13	15
One-eyed and deaf and/or retarded and other physical impairment	25	9	17
Other sensory and mental or physical impairment	21	8	15
Overall impairment rate	3 394	2 149	2 776

Source: Iraq, Ministry of the Interior, General Directorate of Censuses, Abstract of the General Census of 1957 (Baghdad, n.d.) (in Arabic), table 31.

Table IV.24. Number of impaired persons, by type of impairment and sex: Iraq, 1947

Type of impairment	Males	Females	Both sexes
Sensory			
Blind	16 436	19 073	35 509
Loss of sight in an eye	26 885	11 537	38 422
Deaf	4 186	2 004	6 190
Mute	2 079	1 184	3 263
Physical			
Lame and helpless	13 251	3 932	17 183
Totally/partially paralysed	4 613	2 504	7 117
Mentally ill and mentally retarded	2 473	912	3 385
Multiple	1 659	587	2 246
Other	11 035	3 163	14 198
Total	82 617	44 896	127 513

Source: Iraq, Ministry of Social Affairs, General Directorate of Censuses, Census of Iraq, 1947 (Baghdad, 1954) (in Arabic), table 2.

Table IV.28. Number of impaired persons per 100,000 population, by type of impairment and sex; Iraq, 1947

Type of impairment	Males	Females	Both sexes
Sensory			
Blind	728	746	737
Loss of sight in an eye	1 191	461	798
Deaf	186	78	129
Mute	92	46	68
Physical			
Lame and helpless	587	154	367
Totally/partially paralysed	204	98	148
Mentally ill and mentally retarded	110	39	70
Multiple	74	23	47
Other	489	124	295

Source: Iraq, Ministry of Social Affairs, General Directorate of Censuses, Census of Iraq, 1947 (Baghdad, 1954) (in Arabic), table 2.

Table IV.26. Number and rate per 100,000 of impairments among refugees in Jerusalem and Jericho refugee camps, by type of impairment; 1981

Type of impairment	Number	Rate
Sensory		
Blind	44	200
Deaf	9	41
Physical		
Amputated limbs	8	36
Paraplegic	52	237
Hemiplegic	1	5
Deformity	11	50
Polio-related	2	9
Mental		
Mentally retarded	64	291
Epilepsy	3	14
Total	194	884

Source: United Nations Relief and Works Agency for Palestine Refugees in the Near East, "Some efforts towards 'full participation and equality', the theme for the International Year for the Disabled, 1981: a report on the modest contribution of UNRWA staff in the Jerusalem and Jericho areas - West Bank" (mimeo.), unnumbered table entitled "Summary - disabled refugees in Jerusalem and Jericho area camps, 1981".

Table IV.27. Impaired persons receiving special services, by type of impairment and type of service received; Jordan, 1979
(Percentage)

Type of impairment	Type of service received									
	Medical	Educational	Rehabilitation	Social	Medical and Educational	Rehabilitation and social	Comprehensive	None	Unknown	Total
Sensory										
Deaf and mute	24.1	8.4	1.7	2.3	1.7	0.4	0.6	55.9	4.9	100.0
Blind	23.3	1.5	1.2	3.5	3.7	0.5	2.0	59.8	4.5	100.0
Deaf-mute and blind	34.7	5.1	0.9	1.9	2.8	0.2	0.4	50.0	3.9	100.0
Deaf and blind	20.0	0.0	0.0	5.0	0.0	0.0	0.0	72.5	2.5	100.0
Physical										
Sensory										
Paralysis										
Partial	37.0	5.8	1.2	1.9	2.9	0.2	0.7	46.1	4.2	100.0
Complete	36.8	1.7	0.4	2.1	0.8	0.1	1.6	52.3	4.2	100.0
Amputee										
Hand	21.9	6.5	0.8	2.0	0.0	0.0	0.4	64.2	4.2	100.0
Arm	17.9	6.4	0.0	5.2	2.6	2.6	0.0	58.9	6.4	100.0
Leg	34.7	1.4	3.4	2.3	1.9	0.0	1.4	48.6	6.3	100.0
Hand and leg	54.5	9.1	0.0	0.0	0.0	0.0	9.1	27.3	0.0	100.0
Leg and arm	33.3	11.1	0.0	11.1	0.0	0.0	0.0	33.4	11.1	100.0
Mental										
Retardation										
Severe	31.8	6.1	0.5	1.9	1.6	0.4	0.8	53.5	3.4	100.0
Mild	26.6	13.1	1.1	1.4	2.6	0.8	2.1	47.8	4.5	100.0
Emotional disturbance	21.0				13.8	0.7	3.1	0.0	1.8	100.0
Overall	30.2	7.5	1.2	2.4	2.7	0.4	1.1	50.3	4.2	100.0
Total number	5 690	1 410	218	447	507	74	212	9 471	800	18 829

Source: Queen Alia Jordan Social Welfare Fund, National Survey of the Handicapped in Jordan (Amman, n.d.), table 3, p. 15.

Table IV.28. Number of impaired persons, by type of impairment and sex; Lebanon, 1970

Type of impairment	Males	Females	Total
Blind	1 575	915	2 490
Deaf and mute	2 295	2 370	4 665
Paralysis and/or loss of a limb	5 220	3 450	8 670
Mental retardation	2 550	1 785	4 335
Other types	5 970	4 020	9 990
Total	17 610	12 540	30 150

Source: Liban, Ministère du plan, Direction centrale de la statistique, L'enquête par sondage sur la population active au Liban, novembre 1970, vol. 1 (Beirut, 1972), table 38, p. 83.

Table IV.29. Number of impaired persons per 100,000 population, by type of impairment and sex; Lebanon, 1970

Type of impairment	Males	Females	Total
Blind	146	87	117
Deaf and mute	213	227	219
Paralysis and/or loss of a limb	483	330	408
Mental retardation	236	171	204
Other types	553	384	470

Source: Liban, Ministère du plan, Direction centrale de la statistique, L'enquête par sondage sur la population active au Liban, novembre 1970, vol. 1 (Beirut, 1972), table 38, p. 83.

Table IV.30. Number of impaired persons per 100,000 population, by sex and age group; Lebanon, 1970 a/

Age group	Males	Females	Total
Less than 15 years	761	620	692
15 to 64	1 704	983	1 348
65 and over	8 528	8 360	8 444
All ages	1 631	1 161	1 418

a/ Impairment consists of the following categories: blind, deaf and mute, paralysed or loss of a limb, mental retardation and other types of impairment.

Source: Liban, Ministère du plan, Direction centrale de la statistique, L'enquête par sondage sur la population active au Liban, novembre 1970, vol. 1 (Beirut, 1972), table 39, p. 84.

Table IV.31. Number and percentage of persons with physical impairments; Lebanon, 1981

Type of physical impairment	Number	Percentage of impaired persons having the impairment a/
Group I		
Sensory		
Blind	1 576	8.6
Blind only	1 266	6.9
Deaf	2 720	14.8
Deaf only	317	1.7
Mute	4 434	24.2
Mute only	2 010	11.0
Amputation		
Loss of limb	1 051	5.7
Loss of limb only	979	5.3
Combinations of the above		
Deaf-mute	2 208	12.0
Blind-mute	90	0.5
Blind-deaf	70	0.4
Blind-deaf-mute	106	0.6
Other types of combinations	72	0.4
Group II		
Paralysis	6 852	37.4
Paralysis only	4 962	27.1
Rheumatism	2 130	11.7
Rheumatism only	700	3.8
Deformity	2 079	11.4
Deformity only	813	4.4
Other physical	1 353	7.4
Other physical only	542	3.0
Combinations of Group II	2 457	13.4
Total number of impaired persons	18 321	

a/ Percentages do not sum to 100 because respondents having multiple disabilities may be in more than one category.

Source: Lebanon, Office of Social Development, Department of Welfare for the Handicapped, Center of Social Training, Committee for the Enumeration and Classification of Handicapped in Lebanon, Survey for the Enumeration and Classification of the Handicapped in Lebanon, 1980-1981: Final Report (Beirut, 1982) (in Arabic), pp. 15-24; Hashem Husseini and Marwan Houri, "Summary of the preliminary report on the survey of the handicapped in Lebanon, 1982" (Beirut, Working Paper No. 3), pp. 5-9.

Table IV.32. Number and percentage of persons with mental impairments; Lebanon, 1981

Type of mental impairment or disability	Number	Percentage of impaired persons having the impairment a/
Mentally disabled	5 940	32.4
Mildly	1 366	7.5
Moderately	2 085	11.4
Severely	2 046	11.4
Undetermined severity	443	2.4
Epileptic	2 354	12.8
Mongoloid	1 281	6.9
Total number of impaired persons	18 321	

a/ Percentages do not sum to 100 because respondents having multiple disabilities may be in more than one category.

Source: Lebanon, Office of Social Development, Department of Welfare for the Handicapped, Center of Social Training, Committee for the Enumeration and Classification of Handicapped in Lebanon, Survey for the Enumeration and Classification of the Handicapped in Lebanon, 1980-1981: Final Report (Beirut, 1982) (in Arabic), pp. 15-24; Hashem Husseini and Marwan Houri, "Summary of the preliminary report on the survey of the handicapped in Lebanon, 1982" (Beirut, Working Paper No. 3), tables 9-10, pp. 10-11.

Table IV.33. Number and percentage distribution of impaired persons, by type of impairment; Lebanon, 1981

Type of impairment	Number	Percentage
Sensory		
Blind	1 226	10.4
Deaf-mute	1 173	10.0
Physical		
Amputees	617	5.2
Paralysed	4 078	34.6
Physically deformed	463	3.9
Mental		
Mentally retarded	2 676	22.7
Mentally ill	425	3.6
Multiple (Physical and mental)	1 133	9.6
Total	11 791	100.0

Source: CARITAS (International Confederation of Catholic Organizations for Charitable and Social Action), Les handicapés au Liban, study directed by Issam Ikiki, first table presented in the text, unnumbered.

Table IV.34. Number of impaired persons, by type of impairment; urban/rural
Syrian Arab Republic, 1960 and 1970

Type of impairment	Urban		Rural		Total	
	1960	1970	1960	1970	1960	1970
Physical						
Blind	3 585	3 788	9 861	7 901	13 446	11 689
Loss of sight in an eye	5 468	4 892	16 319	12 775	21 787	17 667
Deaf and mute	1 608	3 727	2 961	6 683	4 569	10 410
Loss of an arm or arms	599	704	1 386	1 218	1 985	1 922
Loss of leg or legs	830	813	1 825	1 526	2 655	2 339
Mentally ill or retarded	---	4 615	---	6 549	---	11 164
Other	---	5 549	---	4 542	---	10 091
Total	12 085 a/	24 088	32 352	41 194	44 442	65 282

a/ As given in the source. Apparent sum is 12,090.

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 14, pp. 78-81; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 15, pp. 82-84.

Table IV.35. Number of impaired persons per 100,000 population; rural/urban Syrian Arab Republic, 1960 and 1970

Type of impairment	Urban		Rural		Total	
	1960	1970	1960	1970	1960	1970
Sensory						
Blind	213	138	342	222	294	185
Loss of sight in an eye	324	178	567	358	477	280
Deaf and mute	95	136	103	188	100	165
Loss of limb						
One or both arms	36	26	48	34	44	30
One or both legs	49	29	63	43	58	37
Mentally ill or retarded	---	168	---	184	---	177
Other	---	202	---	127	---	160
Total	717	879	1 123	1 156	974	1 035

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 14, pp. 78-81; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 15, pp. 82-84.

Table IV.36. Number of impaired persons per 100,000 population, by type of impairment and sex; rural/urban Syrian Arab Republic, 1960 and 1970

Type of impairment	1960						1970					
	Urban		Rural		Total population		Urban		Rural		Total population	
	M	F	M	F	M	F	M	F	M	F	M	F
Physical												
Blind	216	210	306	381	272	318	148	128	224	220	190	180
Loss of sight in an eye	400	244	660	468	564	386	227	126	443	271	348	209
Deaf and Mute	107	83	124	81	117	82	152	118	226	147	194	135
Loss of arm or arms	58	12	72	23	67	19	43	7	56	12	50	10
Loss of leg or legs	75	22	86	40	82	33	47	11	64	20	57	16
Mentally ill or retarded	---	---	---	---	---	---	223	110	251	114	238	113
Other	---	---	---	---	---	---	256	145	160	94	202	116
Total	856	570	1 248	992	1 103	837	1 096	645	1 423	878	1 280	778

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 14, pp. 78-81; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 15, pp. 82-84.

Table IV.37. Number of blind persons per 100,000 population, by age and sex; Syrian Arab Republic, 1960 and 1970

Age (in years)	1960			1970 a/		
	Males	Females	Both sexes	Males	Females	Both sexes
Under 1				8	6	7
1-4				15	13	14
Under 5	18	15	16			
5-9	44	36	40	28	21	24
10-14	103	88	96	51	48	50
15-19	139	107	123	95	66	81
20-24	168	97	132	139	110	126
25-29	162	105	132	202	115	158
30-34	179	156	168	200	144	172
35-39	238	191	215	221	137	180
40-44	340	404	370	264	231	249
45-49	434	412	423	356	269	316
50-54	656	703	682	526	526	525
55-59	693	676	685	753	590	678
60-64	1 002	1 296	1 158	1 006	1 159	1 079
65-69	1 247	1 445	1 338	1 209	1 318	1 260
70+	2 747	3 958	3 340	1 338	1 544	1 435
All ages	273	318	294	190	180	185

a/ Adjusted for ages unknown.

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 15, pp. 82-83; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 27, pp. 175-176.

Table IV.38. Number of persons who have lost sight in an eye per 100,000 population, by age and sex; Syrian Arab Republic, 1960 and 1970

Age (in years)	1960			1970		
	Males	Females	Both sexes	Males	Females	Both sexes
Under 1				6	1	4
1-4				13	14	13
Under 5	46	37	42			
5-9	139	106	123	42	28	34
10-14	298	212	257	99	61	77
15-19	410	279	346	204	108	149
20-24	446	267	355	321	214	257
25-29	570	327	443	485	243	342
30-34	718	449	589	530	331	407
35-39	830	596	716	668	377	497
40-44	1 265	780	1 037	752	438	574
45-49	1 371	789	1 097	884	516	675
50-54	1 455	974	1 194	1 199	718	918
55-59	1 542	1 018	1 288	1 363	717	1 005
60-64	1 765	1 178	1 454	1 445	900	1 111
65-69	1 897	1 343	1 643	1 544	810	1 120
70+	2 123	1 541	1 835	1 114	676	854
All ages	564	386	477	348	209	280

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 15, pp. 82-83; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 27, pp. 175-176.

Table IV.39. Number of deaf and mute persons per 100,000 population, by age and sex; Syrian Arab Republic, 1960 and 1970

Age (in years)	1960			1970		
	Male	Female	Both sexes	Male	Female	Both sexes
Under 1				4	6	5
1-4				58	4	47
<5	47	23	34			
5-9	110	82	97	149	102	126
10-14	148	108	129	234	146	192
15-19	172	104	139	227	139	184
20-24	155	100	127	182	141	162
25-29	153	74	111	202	131	165
30-34	119	95	107	204	137	169
35-39	109	76	93	204	116	160
40-44	121	106	114	198	157	178
45-49	124	93	109	218	170	195
50-54	115	93	103	284	229	257
55-59	125	76	101	383	222	306
60-64	150	90	118	412	377	393
65-69	137	105	123	549	424	486
70+	157	170	163	554	427	490
All ages	117	82	100	194	135	165

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 15, pp. 82-83; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 27, pp. 175-176.

Table IV.40. Number of persons who have lost a limb per 100,000 population, by type of limb loss, age and sex; Syrian Arab Republic, 1960 and 1970

Age	1960						1970					
	One or both arms			One or both legs			One or both arms			One or both legs		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
Under 1	1	1	1	1	1	1	1	1	1	2	0	1
1-4	7	5	6	13	8	11	3	2	2	9	5	7
5-9	16	8	12	26	16	21	10	4	7	14	5	10
10-14	31	12	22	38	21	30	17	6	12	28	13	21
15-19	49	12	31	64	26	46	39	10	25	41	16	29
20-24	71	13	42	74	26	50	44	8	27	52	14	34
25-29	79	21	49	87	29	57	64	7	34	69	13	40
30-34	106	25	67	104	37	72	85	13	51	75	23	48
35-39	110	29	71	117	39	79	90	17	53	99	22	60
40-44	116	49	85	149	65	110	99	20	61	120	22	73
45-49	170	34	106	163	57	113	126	14	73	128	25	79
50-54	200	30	108	206	67	130	137	30	85	150	30	91
55-59	177	37	111	217	65	143	159	20	93	167	36	105
60-64	170	45	103	276	75	170	202	33	116	211	56	132
65-69	185	30	114	263	125	200	179	28	103	188	39	124
70+	198	71	135	306	133	221	128	25	77	144	53	99
All ages	67	19	44	82	33	58	50	10	30	57	16	37

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 15, pp. 82-83; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 27, pp. 175-176.

Table IV.41. Number of persons who are intellectually or psychologically impaired per 100,000 population, by age and sex; Syrian Arab Republic, 1970

Age (in years)	Male	Female	Both sexes
<1	4	3	4
1-4	28	17	23
5-9	81	45	63
10-14	234	118	176
15-19	331	133	230
20-24	370	138	254
25-29	420	148	274
30-34	411	172	283
35-39	385	170	272
40-44	372	185	278
45-49	366	186	275
50-54	372	203	284
55-59	304	193	246
60-64	389	228	301
65-69	327	273	292
70+	287	219	248
All ages	238	113	177

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 27, pp. 175-176.

Table IV.42. Percentage distribution of impaired persons 10 years old and over, by educational attainment and sex; Syrian Arab Republic, 1960

Educational attainment	Blind		Loss of sight in an eye		Deaf and without speech		Loss of limb			
							Loss of one or both arms		Loss of one or both legs	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total number	6 140	6 879	12 484	8 057	2 132	1 449	1 473	373	1 762	649
Illiterate	95.4	98.2	71.4	97.0	95.8	97.4	62.7	93.6	64.1	72.3
Read only	0.9	0.1	4.0	0.5	0.4	0.1	5.1	1.9	4.6	3.7
Read and write	1.7	0.2	21.3	1.6	2.3	0.3	26.7	2.7	27.0	20.2
Primary certificate	0.4	0.0	2.5	0.3	0.1	0.1	3.3	0.8	3.2	2.7
Secondary certificate	0.4	0.1	0.6	0.1	0.0	0.0	1.6	0.0	0.9	0.7
University graduate	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1
Master's degree	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doctorate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	1.2	1.4	0.1	0.5	1.3	2.2	0.4	0.3	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 18, pp. 88-89.

Table IV.43. Percentage distribution of impaired persons 10 years old and over by type of impairment, educational attainment and sex; Syrian Arab Republic, 1970

Educational attainment	Blind		Loss of sight in an eye		Deaf and without speech		Loss of limb				Mentally ill or retarded	
							one or both arms		one or both legs			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total number	5 961	5 400	10 963	6 208	5 227	3 520	1 543	277	1 709	452	7 107	3 161
Illiterate	90.0	98.6	70.0	96.7	87.0	97.7	57.5	89.5	64.3	91.6	82.2	96.2
Literate	6.8	0.9	23.2	2.3	11.2	2.0	30.7	6.5	26.7	5.3	12.5	2.8
Primary school	1.7	0.2	4.8	0.7	1.3	0.2	8.3	3.2	6.4	2.7	3.4	0.5
Intermediate	0.5	0.1	1.2	0.1	0.2	0.1	1.6	0.4	1.3	0.4	1.0	0.3
Secondary	0.5	0.1	0.6	0.1	0.1	0.0	0.9	0.4	1.1	0.0	0.6	0.1
Vocational	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.1	0.0
University	0.3	0.0	0.1	0.0	0.1	0.0	0.6	0.0	0.2	0.0	0.1	0.0
Doctorate	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 28, p. 177.

Table IV.44. Percentage distribution of impaired persons 15 years old and over, by occupation and sex; Syrian Arab Republic, 1960

Occupation	Males					Females				
				Loss of limb					Loss of limb	
	Blind	Loss of sight in an eye	Deaf and mute	one or both arms	one or both legs	Blind	Loss of sight in an eye	Deaf and mute	one or both arms	one or both legs
Total number	5 862	11 676	1 731	1 390	1 659	6 664	7 538	1 184	344	597
Professional, technical and related workers	0.5	0.5	0.0	0.6	0.3	0.0	0.1	0.0	0.6	0.2
Administrative, executive and managerial workers	0.0	0.2	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0
Clerical workers	0.0	0.5	0.1	1.3	0.7	0.0	0.0	0.0	0.0	0.0
Sales workers	2.1	7.5	2.0	10.6	8.4	0.3	2.7	1.7	0.6	0.0
Service workers	1.9	2.2	2.8	3.1	1.9	0.2	0.8	3.6	0.0	0.0
Agriculturel, fishing and hunting and related work	5.2	46.8	28.1	26.9	14.1	0.3	2.7	1.7	2.0	1.5
Miners, quarry and related workers	0.0	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Transportation and communication	0.0	0.7	0.2	0.9	0.4	0.0	0.0	0.0	0.0	0.0
Crafts, production process and labourers not elsewhere classified	1.8	15.2	16.1	6.2	8.4	0.0	0.7	1.4	0.0	0.7
Without an occupation	87.5	23.7	47.1	46.4	63.5	99.3	94.1	92.6	95.9	97.0
Unknown	1.1	2.6	3.4	3.7	2.1	0.2	1.5	0.6	0.9	0.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 19, pp. 90-91.

Occupation	Blind	Loss of sight in an eye	Deaf and mute	Loss of limb		Mentally retarded or mentally ill	Other
				One or both arms	One or both legs		
Total number	1 079	9 228	3 414	993	775	1 551	1 454
Professional, technical and related work	12.2	1.3	0.4	2.2	0.9	0.3	2.4
Administration, management	0.2	0.2	0.1	0.5	0.0	0.0	0.5
Clerical	1.2	1.0	0.1	3.4	4.3	0.8	2.9
Sales	15.2	8.6	4.1	14.9	16.6	4.6	16.4
Service	1.9	4.1	3.6	5.8	3.4	3.9	4.2
Agriculture, animal husbandry, fishing and hunting	45.4	61.1	55.4	51.0	47.5	40.4	37.1
Production and related work, operators and labourers	15.2	20.9	23.5	16.7	20.6	16.4	26.5
Not stated	0.4	0.2	0.1	0.1	0.8	0.3	0.1
Seeking work for the first time	8.3	2.6	12.6	5.3	5.9	33.3	9.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English).

Table IV.46. Percentage distribution of economically active impaired females 10 years old and over, by occupation and type of impairment; Syrian Arab Republic, 1970

Occupation	Blind	Loss of sight in an eye	Deaf and mute	Loss of limb: One or both arms	Loss of limb: One or both legs	Mentally retarded or mentally ill	Other
Total number	57	542	242	22	27	97	73
Professional, technical and related work	8.8	2.0	0.0	0.0	0.0	1.1	6.8
Administration, management	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clerical	0.0	0.2	0.4	0.0	7.4	0.0	4.1
Sales	0.0	2.2	0.4	4.5	3.7	0.0	1.4
Service	7.0	7.0	11.6	0.0	3.7	20.7	8.2
Agriculture, animal husbandry, fishing and hunting	57.9	71.4	66.5	68.2	48.1	35.9	37.0
Production and related work, operators and labourers	17.5	14.6	14.9	22.7	29.6	8.7	32.9
Not stated	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Seeking work for the first time	8.8	2.6	6.2	4.5	7.4	33.7	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 29, p. 178.

Table IV.47. Percentage of impaired persons who have no occupation, by type of impairment and sex; Syrian Arab Republic, 1960 and 1970

Type of impairment	1960 a/		1970 b/	
	Male	Female	Male	Female
Sensory				
Blind	87.5	99.3	77.6	98.6
Loss of sight in an eye	23.7	94.1	11.6	90.8
Deaf and mute	47.1	92.6	28.2	92.1
Physical				
Loss of an arm or arms	46.4	95.9	33.1	91.6
Loss of a leg or legs	63.5	97.0	52.7	93.8
Mentally ill or retarded	---	---	77.7	96.9
Other	---	---	70.2	97.0

a/ Aged 15 and over.
b/ Aged 10 and over.

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic) table 19, pp. 90-91. Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 29, p. 178.

Table IV.48. Percentage distribution of economically active impaired males, by employment status and type of impairment; Syrian Arab Republic, 1970

Employment status	Blind	Loss of sight in an eye	Deaf and mute	Loss of limb: One or both arms	Loss of limb: One or both legs	Mentally retarded or mentally ill	Other impairments
Total number	1 079	9 228	3 414	993	775	1 551	1 454
Employer	4.1	4.0	1.5	3.3	3.1	0.7	3.4
Self-employed	58.3	58.2	38.7	55.5	63.1	25.3	49.4
Wage and salary earner	26.3	26.2	28.8	29.2	22.7	23.3	30.1
Earner of wages in kind	0.4	0.4	0.6	0.9	0.4	0.9	0.2
Unpaid family worker	2.2	2.5	17.4	5.6	4.0	15.9	7.0
Unpaid apprentice	0.1	0.2	0.4	0.0	0.0	0.2	0.1
Unknown	0.3	0.3	0.1	0.1	0.8	0.4	0.1
Seeking work for the first time	8.3	8.4	12.6	5.3	5.8	33.3	9.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 26, pp. 171-174.

Table IV.49. Percentage distribution of economically active impaired females, by employment status and type of impairment; Syrian Arab Republic, 1970

Employment status	Blind	Loss of sight in an eye	Deaf and mute	Loss of limb: One or both arms	Loss of limb: One or both legs	Mentally retarded or mentally ill	Other	Total
Total number	57	542	242	22	27	92	73	1 055
Employer	1.8	1.3	0.4	0.0	0.0	0.0	0.0	0.9
Self-employed	56.1	41.1	28.1	45.5	40.7	9.8	42.5	36.4
Wage and salary earner	24.6	31.5	32.2	18.2	33.3	30.4	35.6	31.3
Earner of wages in kind	0.0	0.6	1.2	0.0	0.0	1.1	0.0	0.7
Unpaid family worker	7.0	22.7	31.4	31.8	18.5	22.8	12.3	23.2
Unpaid apprentice	1.8	0.2	0.4	0.0	0.0	2.2	0.0	0.5
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Seeking work for the first time	8.8	2.6	6.2	4.5	7.4	33.7	9.6	7.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 31, p. 180.

Table IV.50. Percentage distribution of impaired persons, by governorate and type of impairment; Syrian Arab Republic, 1960 and 1970

Governorate	1960			1970		
	Blind	Loss of sight in an eye	Deaf-mute	Blind	Loss of sight in an eye	Deaf-mute
Damascus city	5.5	4.8	9.6	7.6	5.4	9.0
Damascus	9.0	7.6	11.1	8.3	6.8	9.0
Homs	8.7	6.9	9.1	7.6	6.3	8.2
Hama	7.4	6.0	7.9	7.6	6.1	7.5
Latakia	10.7	10.6	12.4	6.3	6.3	6.7
Idleb	10.0	9.2	7.5	7.6	6.4	7.5
Aleppo city a/	6.4	5.6	9.5	---	---	---
Aleppo	13.5	12.0	12.0	20.4	18.0	22.6
Al-Rakka	2.9	3.0	2.6	3.8	4.0	3.2
Deir-ez-zor	7.1	6.5	4.5	6.1	5.0	3.8
Al-Hasakeh	9.1	18.0	6.7	11.3	21.4	9.8
Sweida	3.8	3.1	2.1	3.3	2.5	2.4
Dar'a	5.9	6.8	4.9	5.1	7.0	4.7
Quneitra b/	---	---	---	0.4	0.4	0.3
Tartous	---	---	---	4.6	4.5	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

a/ Aleppo and Alleppo city were combined in 1970.
b/ Quneitra and Tartous were not governorates in 1960.

Source: Syrian Arab Republic, Ministry of Planning, Directorate of Statistics, General Census of the Population, 1960 (Damascus, al-Jumhuriyya Press, n.d.) (in Arabic), table 14, pp. 78-81; Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 26, pp. 171-174.

Table IV.51. Percentage distribution of impaired persons, by governorate and type of impairment; Syrian Arab Republic, 1970.

Governorate	Blind	Loss of sight in an eye	Deaf and mute	Loss of limb: One or both arms	Loss of limb: One or both legs	Mentally retarded or mentally ill	Other	Total
Damascus city	7.6	5.4	9.0	10.0	9.6	12.1	15.0	9.3
Damascus	8.3	6.8	9.0	7.5	7.8	14.1	6.5	8.7
Homs	7.6	6.3	8.2	7.8	5.8	7.0	8.4	7.3
Hama	7.6	6.1	7.5	5.5	4.6	6.4	6.6	6.7
Tartous	4.6	4.5	5.4	7.1	2.7	4.0	6.2	4.9
Lattakia	6.3	6.3	6.7	6.5	6.0	5.4	7.1	6.3
Idleb	7.6	6.4	7.5	5.7	5.2	6.2	7.5	6.9
Aleppo	20.4	18.0	22.6	22.7	27.1	25.9	28.9	22.7
Al-Rakka	3.8	4.0	3.2	4.3	5.1	3.2	2.1	3.5
Deir-ez-zor	6.1	5.0	3.8	2.7	3.5	4.1	2.4	4.3
Al-Hasakeh	11.3	21.4	9.8	10.9	16.6	6.5	3.1	11.9
Sweida	3.3	2.5	2.4	2.6	1.4	1.7	2.6	2.4
Dar'a	5.1	7.0	4.7	5.9	3.9	2.8	3.5	4.9
Quneitra	0.4	0.4	0.3	0.8	0.6	0.4	0.1	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of impaired persons	11 689	17 667	10 410	1 922	2 339	11 164	10 091	65 282

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 26, pp. 171-174.

Table IV.52. Number of impaired persons per 100,000 population, by type of impairment and governorate; Syrian Arab Republic, 1970

Governorate	Blind	Loss of sight in an eye	Deaf and mute	Loss of limb: One or both arms	Loss of limb: One or both legs	Mentally retarded or mentally ill	Other	Total
Damascus city	106	115	112	22	27	162	181	725
Damascus	157	193	151	23	29	254	106	913
Homs	163	205	157	27	25	144	156	877
Hama	172	210	151	20	21	140	130	844
Tartous	180	262	188	45	21	150	207	1 053
Lattakia	190	284	178	32	36	153	183	1 056
Idleb	230	296	203	28	32	180	200	1 169
Aleppo	181	242	178	33	48	220	221	1 123
Al-Rakka	183	293	137	34	49	148	87	931
Deir-ez-zor	244	299	134	18	28	157	83	963
Al-Hasakeh	281	806	217	44	83	155	66	1 652
Sweida	274	310	175	36	23	134	188	1 140
Dar'a	255	525	212	49	40	135	151	1 367
Quneitra	285	431	212	91	85	261	36	1 401

Source: Syrian Arab Republic, Population Census, 1970: Syrian Arab Republic, vol. I (Damascus, n.d.) (in Arabic and English), table 26, pp. 171-174.

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